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**INSIDE DOPE**by **GEORGE F. TAUBENECK****Story of the Week****Too True To Be Funny**  
**Does Sales Training Pay Off?**  
**Program for Action**  
**Results Came Quickly**  
**Case Histories**  
**More Case Histories****Story of the Week**

In fantastic Hollywood, gals-and-guys are chortling about the apocryphal tale of the priest and the minister who met socially at a producer's party. During the course of their conversation, they discussed the motion picture industry, of course.

"The movies have certainly done well by you Catholic fellows," said the Methodist preacher. "First, they made 'Boys Town,' the story of Father Flanagan. After that came 'Going My Way,' with Bing Crosby; and then Ingrid Bergman was presented in 'Bells of St. Mary's.' And don't forget Jennifer Jones in the 'Song of Bernadette.'"

"You're right," agreed the priest. "Those much-maligned Hollywood producers have treated the Catholic clergy kindly, indeed."

"Funny thing, though," the Methodist minister went on. "Nobody ever seems to make any movies about us Protestant preachers."

"I remember one," answered the Catholic priest.

"Really? What?"

"Rain," replied the priest, harranging hugely.

**Too True To Be Funny**

At South Bend's busy Bendix Home Appliances, Inc., Alvin P. Smith, national service manager, telephoned Lynn Eaton, manager of districts.

Mr. Eaton's secretary replied:

"I'm sorry, but he isn't here. He's taking his vacation this afternoon."

Brother Eaton is typical of this fast-moving industry. Example: a NEWS editor has taken only 18 days vacation in the past 18 years on the job—one day for each year. And that's the way it goes in our business. Everybody we know works overtime because the pressure mounts . . . and mounts . . . and mounts.

Trying to rest via a vacation is futile in the business. The work piles up meanwhile, and must be done after you get home.

**Does Sales Training  
Pay Off?**

Not too long ago our good friend Byron H. Spinney, veteran New England appliance distributor, staged two banquets—one at the Hotel Kimball in Springfield, Massachusetts, and the other at Tubberts in Syracuse, New York.

Byron Spinney and his "boys" were celebrating because they had just completed seventeen weeks of intensive dealer sales training—a tour-de-force that had produced results practically from the start.

There had been plenty of fun in this argosy (fun with a purpose) but in the main the "Spinney family" had concentrated on intensive study and hard work.

Purpose of this orgy of work: Spinney's "boys" wanted to help their dealers do a better merchandising job on new appliances and to prepare these dealers to meet the highly competitive conditions that normally exist in the appliance business.

Back in December of 1947, our cagey old friend, Byron Spinney, recognized that the "gravy train" of contemptuous order-taking was overdue for oblivion.

(Concluded on Page 12, Column 1)

**The Business-Managed Power  
Companies and the  
Home Freezer***(A guest editorial by G. H. Smith)*

At a recent sales conference of the Edison Electric Institute, it was shown that the power companies of America were operating at their full kilowatt-hour capacity. The post-war bug-a-boo of reduced power loads following the end of World War II not only did not materialize, but, on the contrary, every month has shown a steady increase in demand that must be met with new investment in additional generating capacity. This continued peak requirement and general lack of capacity has made it necessary for many of the business-managed power companies to restrict their aggressive promotion of load-building appliances.

At this meeting it was pointed out that there is over six billion dollars worth of generating equipment on order with generating equipment manufacturers, which will provide a total of 50 million additional kilowatt-hours of new capacity by 1951. This new generating capacity will be acquired at current high prices and will represent a high investment; therefore, the load that this new capacity will take care of must be highly profitable and well diversified.

How does the home freezer stack up in a load-building program for the power industry? It is, without doubt, the finest connected load that is possible to acquire. It is connected 24 hours a day, it does not require additional or special wiring, yet operates approximately 40% of the time in a 75° ambient temperature in the home. Once the food is frozen, it operates for recovery of heat loss only, which provides an even distribution of operating time throughout the entire 24 hours.

In normal home operation, the 5 and 6 cu. ft. home freezers use approximately 1.7 kilowatts per 24 hours. The 10 to 12 cu. ft.

(Concluded on Page 16)

**Household Sink Unit  
Group Set Up by NEMA**

NEW YORK CITY—A household sink units section has been added to the National Electrical Manufacturers Association to handle problems of the waste disposer and dishwasher industries, Nema has announced.

The new section is composed of nine members and is headed by R. C. Cameron, manager of the dishwasher and disposal department of Hotpoint, Inc. of Chicago.

Other officers are Millard E. Foist, assistant sales manager of Given Mfg. Co. of Los Angeles, vice chairman; and John W. Hammes, president of In-Sink-Erator Mfg. Co. of Racine, Wis., chairman of the technical committee.

Other members of the section are: National Rubber Machinery Co. of Akron, Ohio; Thomas W. Berger, Inc. of Cincinnati; Eureka Williams Corp. of Bloomington, Ill.; General Electric Co. of Bridgeport, Conn.; Hobart Mfg. Co. of Troy, Ohio; and Westinghouse Electric Corp. of Mansfield, Ohio.

**Gibson Boosts Prices on  
Refrigerators, Ranges**

GREENVILLE, Mich.—Price increases of \$6 to \$15 on its refrigerators and \$4 to \$20 on its ranges have been announced by Gibson Refrigerator Corp.

The list of models affected by the new price schedule is as follows:

	Old Prices	New Prices
Refrigerators		
768	\$218.75	\$228.75
778	249.75	263.75
788	288.75	303.75
798	337.75	343.75
Ranges		
198B	\$209.75	\$219.75
198D	259.75	279.75
198K	334.00	349.75
198H	395.00	399.75

**Norge, Thor Release  
New Prices on Washers**

DETROIT—Establishment of a national price on Norge washing machines and an average 10.8% increase in Thor clothes and dishwasher prices were announced by their respective companies last week.

The new Norge washer prices, effective Aug. 1, eliminated variances between territories. In some territories, the company added, the change meant no increase.

New national prices are \$119.95 on model 814, \$129.95 on model 817, and \$139.95 on model 818. When equipped with a pump, the washers are priced \$10 higher, the company said.

A new model, called the W-812, is priced at \$99.95. With pump, it, too, is \$10 higher.

New Thor prices were listed as follows:

Automatic clothes washer, \$229.50; (Concluded on Back Page, Column 4)

**20-30% Freight Rate Rise  
Made Permanent by ICC**

WASHINGTON, D. C.—The temporary 20 to 30% freight rate increases which were authorized last October have been made permanent by the Interstate Commerce Commission with a few changes.

Railroads, water carriers, and freight forwarders are covered equally, and the new rates may be made effective upon 15 days' notice.

Protective service charges, such as refrigeration and heating, will be permitted a 15% increase instead of the 10% boost previously authorized.

Continuing by the latest order are the following basic rate increases: 30% in the Eastern territory; 25% in the Southern territory and within zone of Western trunk-line territory, and interterritorially between Southern and Western territories and between those territories and the East; 22½% between Western territory other than Zone 1 of Western trunk-line territory; and 20% in the remainder of Western territory.

**Copper Price Hiked  
2 Cents by 6 Firms**

NEW YORK CITY—Three large and three small copper producers raised the price of copper two cents to 23½ cents per pound last week—the first increase in the price of that metal since March 4, 1947.

One large producer, however, held to the 21½ cents per pound price previously prevailing but was expected to jump its price soon. This producer, Kennecott Copper Corp. is faced with a strike of its production workers over a new contract and has present orders on allotment.

Two brass firms—American Brass Co. and Revere Copper & Brass Co.—also announced increases in their brass and copper products by an average of one cent per pound. Their price rises, in addition, reflect a recent three cents per pound boost in the price of zinc.

The three smaller copper firms led the advance. They are Miami, Calumet & Hecla, and Consolidated Coppermines. The larger producers, Phelps Dodge Corp., Anaconda Copper Mining Co., and Revere Copper & Brass Co. followed suit when they opened their books for September orders.

Both the larger outfits declared that orders at the advance price were coming in in substantial numbers.

**Stainless Steel Jumped  
10% by Allegheny Co.**

PITTSBURGH—Prices on stainless steel products manufactured by Allegheny Ludlum Steel Corp. were advanced 10% in a recent move by the company. The advance, according to company officials, is the first in 2½ years.

Continued rising production and labor costs necessitated the price rise, they said. They noted that since the last increase, the price of stainless steel alloys has advanced materially.

Nickel has gone up \$210 per ton and ferro-chromium about \$70 per ton.

**'Foolproof' Plan Said  
To Stop Price Chiseling**

NEW YORK CITY—Development of what was described as a "foolproof" plan to prevent dealer price cutting is claimed by Benjamin Gross, president of Gross Distributors, Inc., metropolitan area distributor here for Stromberg-Carlson television receivers.

Under the plan, he said, a dealer who "steals" a sale from a price-maintaining competitor by selling below list is forced to turn over his full gross profit on the transaction to the injured dealer.

The Gross organization, like other television distributors, maintains professional shoppers and utilizes its own personnel to ferret out dealers (Concluded on Back Page, Column 2)

**Canada Cuts Taxes, But  
Retains Bans on Imports**

OTTAWA, Ont., Can.—Although Canada has abolished its 25% special excise tax on refrigerators, electrical appliances, and some other items, these products are still subject to import bans, it is reported.

Imposed last Nov. 17 in the currency conservation program, the 25% tax covered refrigerators, washers, vacuum cleaners, other appliances, motorcycles, outboard motors, firearms, and some toilet articles.

Excise taxes have also been reduced on automobiles from a sliding rate starting at 25% to a flat 10%. Autos, however, remain on quota restrictions, along with certain other products.

**Time Payment  
Curbs May Get  
Congress Okay****Wartime Requirements of  
1/3 Down, 12-15 Months  
May Be Reinstated**

WASHINGTON, D. C., Aug. 5—Restoration of government controls on instalment buying and tightening of bank credit appear at this stage to be the only curbs on inflation that are likely to pass the special session of Congress.

Such a bill is scheduled to be presented for a vote in the House on Thursday.

If passed, the House bill would give the Federal Reserve Board authority to control instalment buying until March 15, 1949, by prescribing down payments and the length of time for paying off balances.

This would mean that buyers of refrigerators, automobiles, radios, and the like would have to pay at least one-third down and the balance within 12 to 15 months.

The Federal Reserve Board would also be authorized to have its member-banks increase time-deposits reserve requirements 1% and demand deposits 3% from the present 6% and 14 to 26%, respectively.

Another section of the bill would increase gold reserves from the present 25% for Federal Reserve notes to 40% and 35% for Federal Reserve deposits.

**Marshall Field Plans  
Shot-In-the-Arm for  
Frozen Foods, Freezers***By Phil B. Redeker*

CHICAGO—If the frozen food home delivery program now being experimented with by Marshall Field & Co., famed Chicago department store, is carried out on the scale which the store management is said to be planning, the frozen food and home freezer industry in the Chicago metropolitan area will get a tremendous shot-in-the-arm.

At present Field's is making home deliveries of frozen foods on a limited scale to residents of the "north suburbs" which include some of the most expensive residential sites in the Chicago area. The program for expansion would call for an extension of the service to the entire Chicago metropolitan area, with sales to cash as well as charge customers.

Officials of the department store are reticent to supply many details on the program right now, pointing out that the details on how all phases of the program will operate are not set at this time. There is some indication, however, that the big promotion push for Field's frozen foods program may come before the end of this year.

Field's appliance department will tie in with the program, of course, and promotion copy will probably point out that a home freezer will be necessary for the owner to take advantage of the delivery service, which will be promoted on the basis of quantity orders delivered at not- (Concluded on Back Page, Column 2)

**Annual NARC Meeting Set  
For Chicago Nov. 18, 19**

CHICAGO—Annual meeting of the National Association of Refrigeration Contractors will be held Nov. 18 and 19 in the Hotel Sherman here, the group has announced.

The Chicago contractors association will be host of the meeting.



## Appliances Provide 40% of Credit Jewelers' Sales

CHICAGO—If credit jewelers do much more appliance business than they are now, "we go out of the jewelry business and into appliances," in the opinion of one jeweler attending the annual convention of the National Association of Credit Jewelers here.

This remark came as the executive secretary of the association, William Wagner, told the jewelers that non-jewelry items such as major and minor appliances constituted about 40% of their total business during the first half of the year.

However, Wagner indicated that jewelers expected this type of business to drop to about 25% of the total during the last half of the year. He compared this with the 10 to 15% recorded before the war.

## Kelvinator Sets Up New Branch, Shifts Personnel



Bruce Beveridge

W. R. Gunberg

C. S. Raugh

DETROIT — Establishment of a new Kelvinator factory zone at Seattle and the appointment of W. R. Gunberg as zone manager has been announced by C. T. Lawson, vice

president of Nash-Kelvinator Corp. in charge of Kelvinator sales.

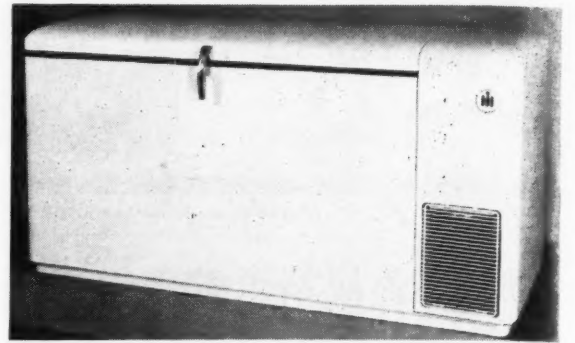
Gunberg, who has been Kelvinator branch manager at Newark, N. J., since 1945, entered the appliance field in 1925 as a salesman. In addition to operating his own dealership for several years, Gunberg has held executive field positions with leading appliance manufacturers for nearly 20 years.

He is succeeded as branch manager at Newark by Bruce Beveridge, branch manager at Baltimore. Beveridge became associated with Kelvinator in 1937 as retail salesman at the Detroit zone, later joining headquarters staff as regional representative, and subsequently going to Baltimore in 1944.

C. S. Raugh, district manager at Cleveland, has been named new branch manager at Baltimore. With an extensive background in retail appliance selling, Raugh joined Kelvinator at Pittsburgh in 1939 as zone representative.

## 15-Ft. Home Freezer Added to Harvester's Line

Now in production at the International Harvester plant in Evansville is this 15-cu. ft. home freezer, which will take its place beside the 4 and 11-cu. ft. models. Similar in styling to the 11-ft., the new unit features an interior light and an alarm attachment. It will sell for \$475, f.o.b. Evansville, Ind.



## 2 Appliance Distributors Merge In Indianapolis

INDIANAPOLIS—Merger of two appliance distributors, Monarch Sales Co., Inc. and Associated Distributors, Inc., has been completed here.

Louis D. Randle, who becomes president of the consolidated firm, indicated that the company would carry the name of Associated Distributors, Inc.

W. R. Kraft has been named vice president under the revised setup. He was formerly vice president of Monarch Sales, which distributed freezers as well as heating and laundry equipment. R. D. Robinson, previously president of the old Associated Distributors will become secretary-treasurer in the new arrangement. His firm handled radios and records.

Offices, warehouses, and merchandise lines of both companies are being consolidated. The new Associated Distributors will operate from headquarters at 210 South Meridian St.

## Freight Rates Conflict, Say Minnesota Shippers

MINNEAPOLIS — Shippers of refrigeration equipment have been affected by a ruling of the state railroad and warehouse commission which refused to split Minnesota into two zones for railroad freight-rate making purposes, putting the state in direct conflict with the federal interstate commerce commission.

The commission denied the request of 21 railroads to split the state into two sectors along an imaginary line running from Duluth to Hinckley to Minneapolis to Mankato to Worthington.

Southeast of that line the carriers asked for 25% increase on intrastate shipping allowed in the same zone by the ICC. Northwest of the line a 20% boost was asked on interstate rates.

The commission held that "there were no transportation or traffic conditions which justified the maintenance of two bases of rates in the state of Minnesota."

In denying the request, however, the commission reaffirmed a flat 20% increase approved last December but changed the method of applying it.

Real test of state's action is expected to come if some shipper in interstate commerce feels that he is being discriminated against in Minnesota by the 5% differential.

For example a shipper in Superior, Wis., sending goods into Minnesota will have to pay the 25% increase ordered by the ICC. But a shipper in Duluth, sending a shipment to the same point will pay 5% less.

The flat 20% increase of last year was formerly computed on the total transportation charges.

There is nothing to match the appearance of a Stainless Steel Refrigerator Shelf—unless it is another Stainless Steel Shelf.

**Wall WIRE**  
**PRODUCTS COMPANY**  
  
PLYMOUTH • MICHIGAN

Makers of  
REFRIGERATOR SHELVES • STAMPINGS  
FORMED AND WELDED PRODUCTS

## An Excellent "BUSINESS OPENING"



STREAMLINED COOLER LOCK No. 800

FULLY AUTOMATIC — UNIVERSAL  
IN APPLICATION. EITHER RIGHT  
OR LEFT HAND. CAST BRONZE  
NICKEL OR CHROME FINISH  
WEIGHT — 2.3 POUNDS



STREAMLINED HINGE No. 1005

FORGED BRASS  
5-INCH BLADE  
NICKEL OR CHROME FINISH

A full range of sizes for all needs.

Good hardware — designed and built to operate smoothly, positively throughout a long and useful life.

Write for catalog showing the complete Arcade line.

**ARCADE**

MANUFACTURING DIVISION  
ROCKWELL MANUFACTURING COMPANY  
FREEPORT, ILLINOIS



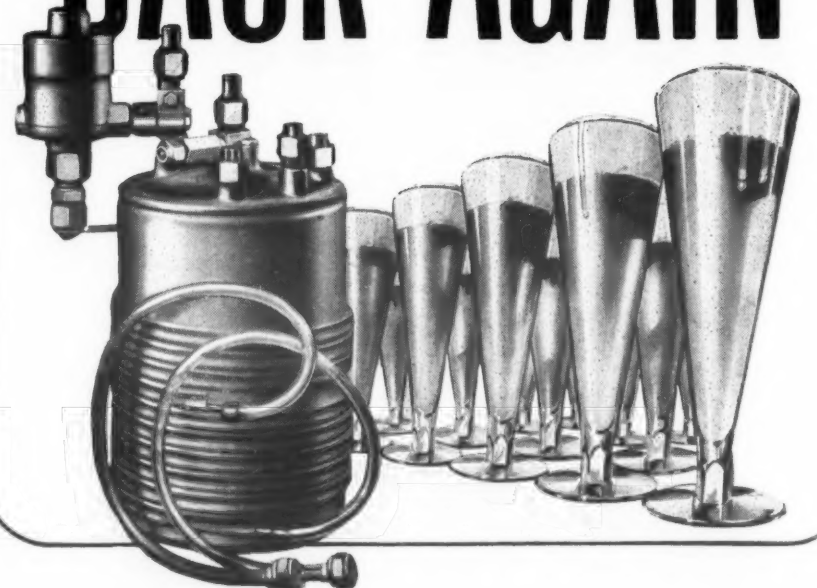
## Beauty on the Spot

CASPER, Wyo. — Miss America may be able to get by on her beauty, but Mrs. America's gotta be a home-maker too.

So Mountain States Appliance Co. here is out to help the state of Wyoming discover who's going to be its representative in the September finals of the "Mrs. America" contest.

As sponsor of the "Mrs. Wyoming" competition, this dealership is urging would-be entrants to stop at the store for an entry blank. Aiding Mountain States in the promotion is a local radio station and the Central Wyoming Fair & Rodeo.

## BACK AGAIN



## HEAVY DUTY BEER COOLERS

by *Temprite*

Out of production since before the war, Temprite heavy duty beer coolers are back again to help you make more money. Now is the time! This is the season! Tell your customers

about Temprite. You can now offer 7 new improved models for every type of beer cooling application. Outstanding features include specially shaped stainless steel coils, compact size and patented temperature control.

Write or wire now for details.

**TEMPRITE PRODUCTS CORP.**

Originators of Instantaneous

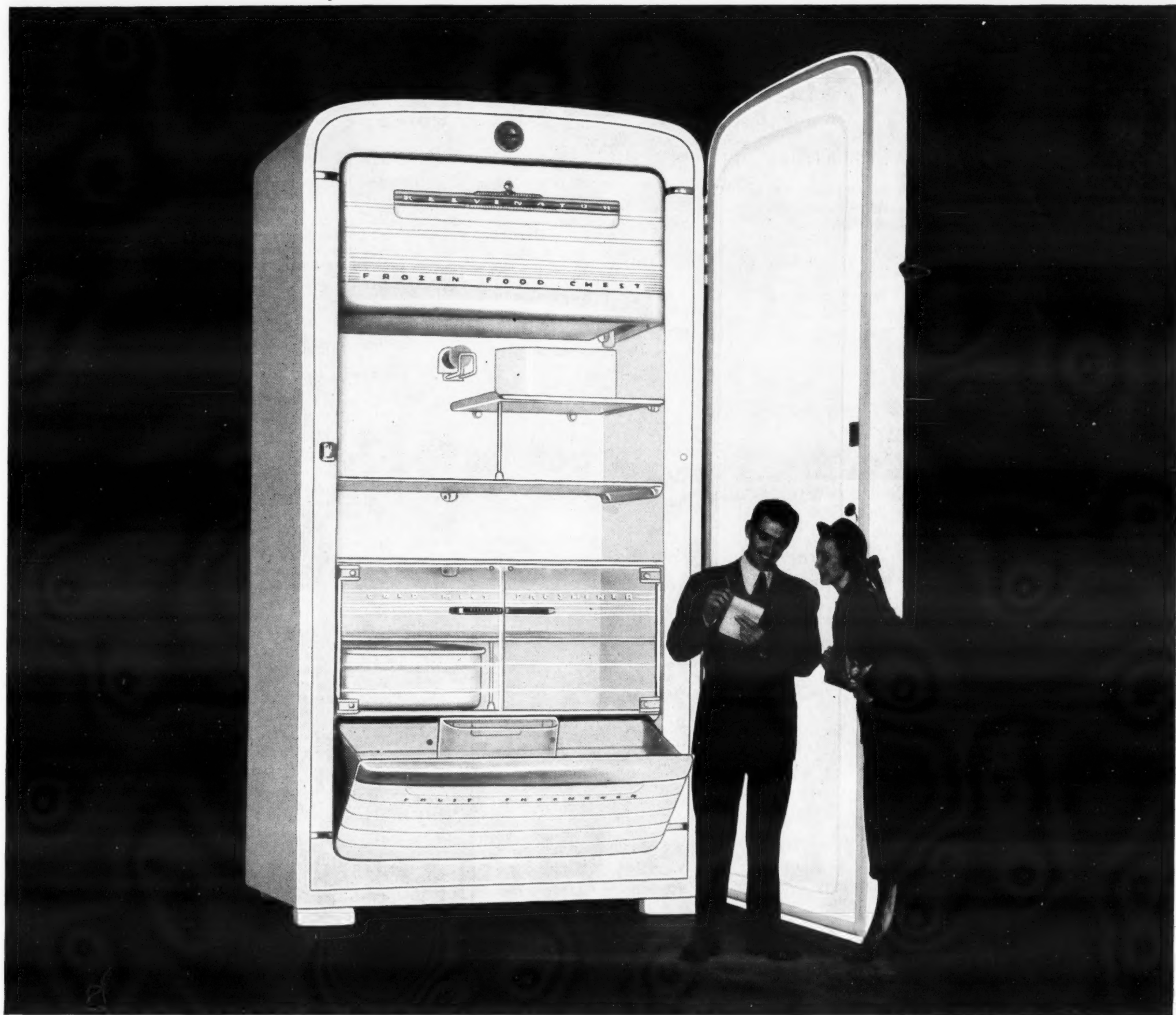
80° 40°

Liquid Cooling Devices

48 PIQUETTE AVENUE

DETROIT 2, MICHIGAN





## Retail-mindedness—Wrought in Steel!

Perhaps no other refrigerator in history has enjoyed the flood of public acceptance which has greeted this 1948 Kelvinator Masterpiece model.

And for Kelvinator dealers, this is a proud hour.

For they, too, know the sense of achievement . . . the satisfaction of being *first* with a new and better type of home refrigeration. *Top-To-Bottom* refrigeration with all it means in better value and better service for the American home.

Again and again, year after year—the Kelvinator Franchise gains deeper meaning. Never identified with the commonplace, it consistently stands for fundamental advances . . . in the designing,

building and retailing of home appliances.

It stands for *Retail-Mindedness* in action—the ceaseless effort to keep Kelvinator the *better* value.

It stands for a line of models with the value of Step-Up features between models clearly visible to the customer.

It stands for uncompromising quality and dependability. The Kelvinator's Polarsphere cold-maker is justly famed the country over for its trouble-free service and penny-pinching economy.

The 1948 Kelvinator Masterpiece is the embodiment of these sound principles . . . Retail-Mindedness wrought in steel.

TUNE YOUR RADIO TO EDWIN C. HILL, and "THE HUMAN SIDE OF THE NEWS" Monday through Friday . . . another retail-minded contribution to the progress of Kelvinator Dealers.

# Kelvinator—of Course!

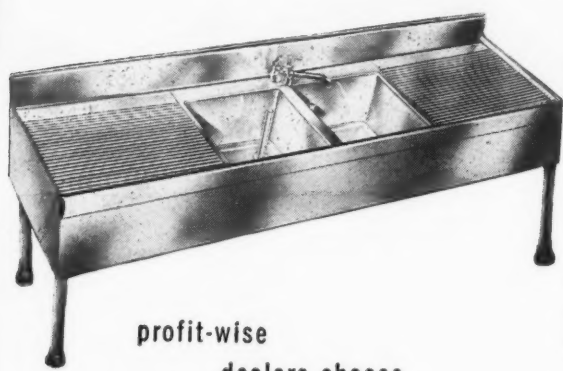
... THE MOST VALUABLE FRANCHISE IN THE APPLIANCE INDUSTRY

KELVINATOR, DIVISION OF NASH-KELVINATOR CORPORATION, DETROIT, MICHIGAN



for  
eye-appeal  
economy  
performance

specify  
**Supremetaline**



profit-wise  
dealers choose

### SUPREMETAL under-bar workboards

An arrangement to fit every bar! The right size for every need! And priced just right, too! Check these better-than-ever features: **ROUNDED-CORNER SINKS!** Horizontal and vertical corners and intersecting coves are fully rounded for top-notch sanitation, appearance, drainage. **SUPERDRAIN DRAINBOARDS!** Unusual die-stamped corrugation provides wide drainage channels, greater rigidity and strength! **ALL-STEEL HEAVY-DUTY CONSTRUCTION!** Not a stick of wood in it! **ROUNDED SPLASH AND NOSING!** Each die-stamped out of one piece of sturdy, stainless steel.

Write TODAY for catalog showing the complete profit-making SUPREMETALINE!



ALL-STEEL BAR AND BEVERAGE SERVICE EQUIPMENT

SUPREMETAL FABRICATORS, Inc. • BROOKLYN 11, N. Y.

### Frigidaire Feature-Freezer Spots 'Sales Specials'

DAYTON, Ohio—A new mobile 6-cu. ft. Frigidaire Feature-Freezer, mounted on wheels and equipped with an eye-catching merchandising panel, will be a sure-fire sales builder for groceries, markets, delicatessens, drugstores, confectioneries, and similar businesses, the company claims.

Described as a "traveling merchandiser," the new low-temperature cabinet will hold approximately 215 lbs. of frozen food or ice cream products. It can be moved easily about the store area or pushed outside for display as required by filling stations, roadside stands, and markets. The freezer is said to be ideal for spotting "sales specials" of the day.

The freezer, which is finished in gleaming white, comes equipped with a merchandising panel. There are handy guides provided for the insertion of individual product price cards. By adding a simple slip-over, the freezer can be converted into a frozen food merchandiser. An illuminated canopy attachment is also available.

Of all-steel construction, the cabinet is reinforced by steel corner posts, electrically welded to the sides and bottom, together with insulated steel mullions. There is a stainless top of one-piece construction over a heavy steel sub-top to prevent denting. Rubber insulating collars reduce heat conduction from the cabinet top. Insulation is a thick layer of fibrous glass. Asphalt sealing is used throughout. Four heavy-duty casters permit extreme portability.

Completely self-contained, the Fea-

### 'Traveling Merchandiser'



Frigidaire Feature-Freezer

ture-Freezer is refrigerated by Frigidaire's rotary Meter-Miser compressor, which is hermetically sealed, is self-oiling, and protected by a special five-year warranty. Approximate dimensions of the new model are 38½ in. wide and 57 in. high. Although popular demand is for this four-hole freezer, a larger six-hole model is available.

### Du Pont Net Profit Rises To \$62,611,127 for Half

WILMINGTON, Del.—Net profits earned by the E. I. du Pont de Nemours & Co. for the six months ended June 30, 1948 rose to \$62,611,127, slightly higher than those for the same period last year, the company has announced.

Sales for the period, however, reached \$461,344,351, 20% higher than for the first half of 1947.

Earnings per share for the half year were \$5.12 as compared to \$5.13 last year, the slight decrease being attributed to an increase in number of common shares outstanding.

Though earnings were only slightly larger this half than in 1947, the company noted that last year's earnings included a \$4,300,000 "reversion of excess reserves for income taxes," not found in this year's report.

Earnings for the second quarter were improved somewhat over the first quarter and those for the last half of the year are expected to show further gains, company officials said.

### Economical Power Source Could Up Aluminum Output

NEW YORK CITY—A shortage of economical electrical power is cutting into the ability of the aluminum industry to meet civilian and military demands for its products, Donald M. White, secretary of the Aluminum Association, declared recently.

Pointing out that many manufacturers have been supplied with surpluses that rose after V-J Day and which are now exhausted, White said that further supplies to these manufacturers will have to come out of new production.

The industry, he said, although it is producing more than four times as much aluminum as it did prewar, is now 500,000,000 lbs. behind present demand. In four years time, with no new production capacity, the industry will be 750,000,000 lbs. behind demand—civilian demand, that is.

Asserting that the aluminum industry uses 10 kwh. for each pound of primary aluminum it produces, White translated the shortage of aluminum into a shortage of 670,000 hp.

If additional electrical power were supplied to the industry, its present plants could produce about 175,000,000 lbs. more aluminum, he stated. But this is far short of the actual need, he added.

"However, if increased sources of economical power were assured, the industry could and would expand its productive capacity," he said. "Increased productive capacity probably could become available in a year."

### Bendix Price Protection Plan Is for Ironers, Dryers, Too

SOUTH BEND, Ind.—The price protection policy announced recently by Bendix Home Appliances, Inc., applies not only to five models of automatic washers, but to dryers and ironers, Parker H. Erickson, director of sales, has advised distributors.

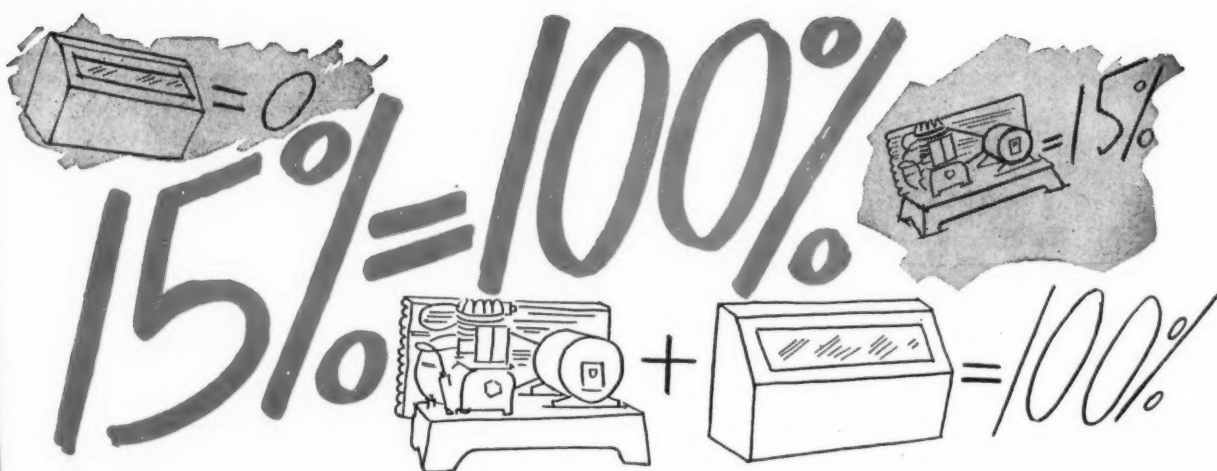
Effective July 22, the six months' price guarantee expires Jan. 31, 1949, but the subject will be reopened before that time for review and possible extension.

Current retail prices of the Bendix dryer are \$229.50, electric model, and \$249.50, gas model. The Bendix ironer is \$229.50.

**BRUNNER**  
SINCE 1906

**REFRIGERATION** helps you serve better

### Memo to Refrigerated Equipment Manufacturers

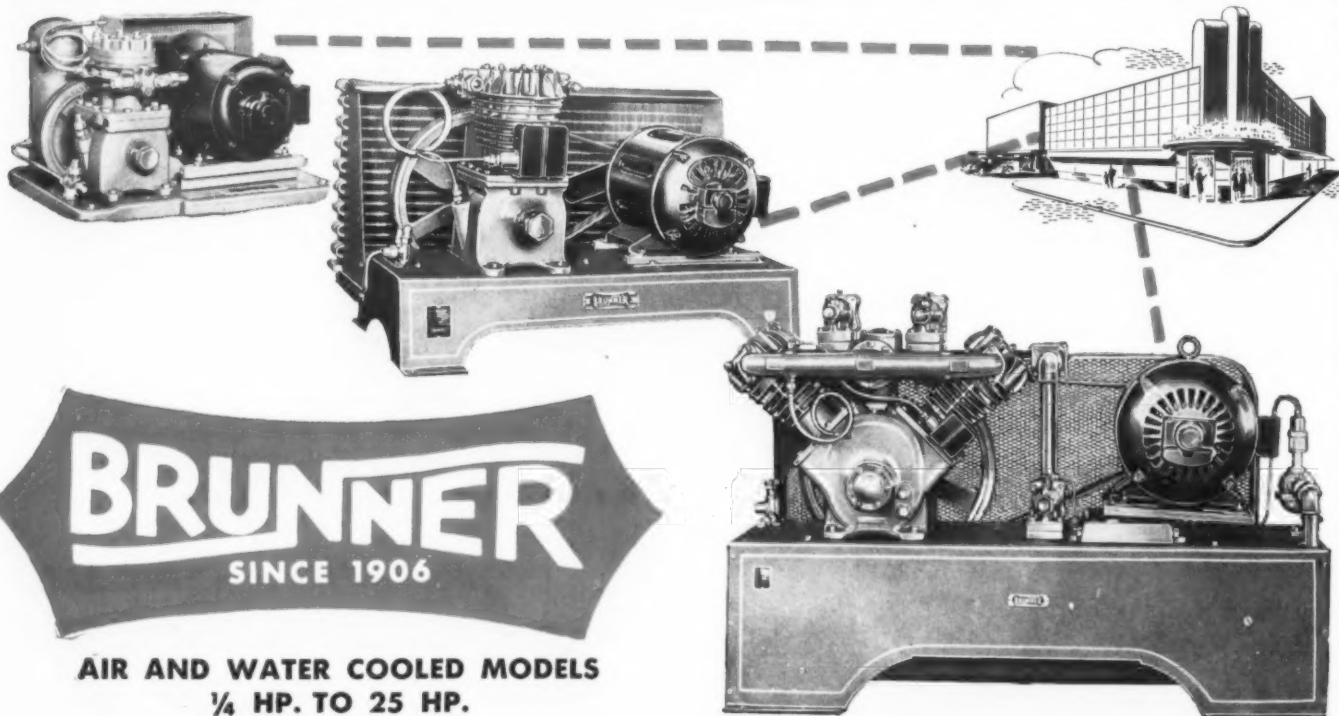


"Tain't so you say, but consider this: often less than 15% of the selling price of your equipment is represented by the refrigeration unit you install. Yet the satisfaction of your customer is fully dependent upon the uninterrupted operation of that refrigeration unit.

It's a great sales advantage when you can say "we are using Brunner units." Your custom-

ers know of Brunner's reputation for quiet running, low maintenance, dependable long life...and they are being kept posted through the pages of trade journals they read for guidance. The best part is this: it costs you no more to equip with recognized and preferred Brunner refrigeration units.

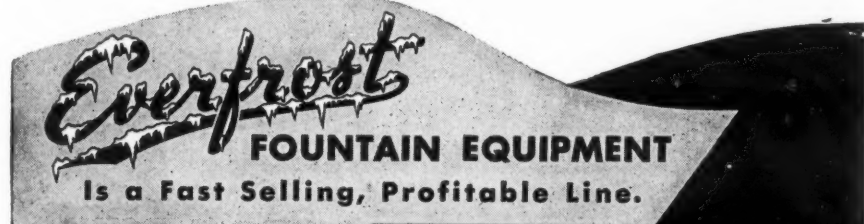
**BRUNNER MANUFACTURING CO.**  
UTICA 1, NEW YORK, U. S. A.



**BRUNNER**  
SINCE 1906

AIR AND WATER COOLED MODELS  
¼ HP. TO 25 HP.

### HIGH IN QUALITY—



### 3 SINK BOBTAIL

Aggressive fountain dealers who want a high quality line of fountain equipment will find that "Everfrost" will give them a complete line of equipment that is priced right. Two and three sink bobtails... complete soda fountains with or without sink sections... ice cream cabinets and luncheonette equipment. Here is a line which will be a real money maker for you. Write or wire today for complete franchise information.

**ANDERSON & WAGNER INC.**  
8701 South Mettler Street • Los Angeles 3, Calif.



# PARTNERS FOR MORE SALES

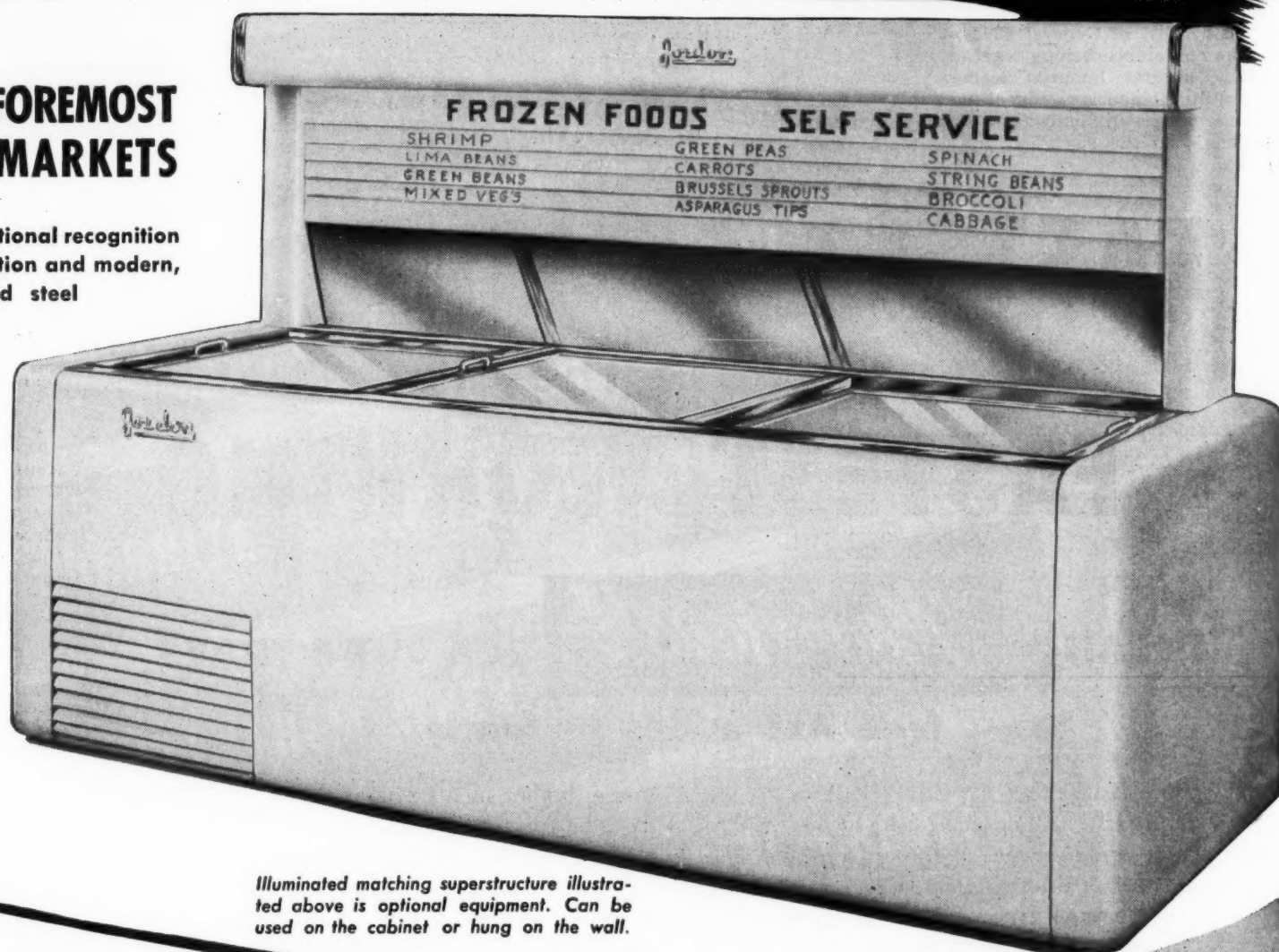
## JORDON Frozen Food and Ice Cream Merchandisers are in full demand Now!

**USED—APPROVED BY AMERICA'S FOREMOST INDEPENDENTS, CHAINS, SUPERMARKETS**

Jordan Frozen Food and Ice Cream Merchandisers have won national recognition and acceptance because of their heavy-duty, quality construction and modern, streamlined design. Structural features include: All-welded steel cabinet, Bonderized and finished with Hi-Baked white enamel. 5" Fiberglas insulation. New "Free-Air" Automatic Temperature Control that assures **ABSOLUTE TEMPERATURE** to match dial setting. **THERMOPANE Double Glass doors on rollers in STAINLESS STEEL DOOR FRAMES.** Adjustable dividers. Heavy-duty "Freeze-wall" inner liner with 38% extra coil section. **SELF CONTAINED CONDENSING UNIT.**

Available in 16 and 24 cubic ft. sizes  
For Clerk or Self-Service Use.

**STILL** the biggest  
sellers in their class!



Illuminated matching superstructure illustrated above is optional equipment. Can be used on the cabinet or hung on the wall.



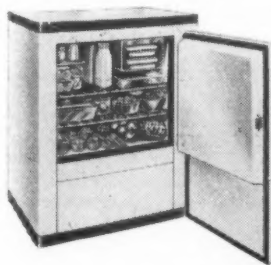
### JORDON 10/4 2-TEMPERATURE REFRIGERATOR

—for large city homes, country estates, farms, boarding-houses, clubs and fraternities, lunch-rooms, factory cafeterias, canteens, institutions, hospitals, etc.

#### SPECIFICATIONS

- ★ 10 CU. FT. NORMAL REFRIGERATION. Room for approximately 350 lbs. of fresh or cooked foods.
- ★ 4 CU. FT. FREEZER-LOCKER. Room for about 140 lbs. of frozen foods bulk ice cream, etc.
- ★ 12 LBS. ICE MAKING CAPACITY. 6 trays, 84 cubes. Fast freezing.
- ★ ONE CONDENSING UNIT. ¼ H.P. Hermetic. ONE simple temperature control. 5-year warranty available.
- ★ HIGH POLISH STAINLESS STEEL INTERIOR. Hi-baked white enamel exterior on Bonderized all-welded steel.
- ★ DIMENSIONS: Only 68" High. 29" Deep. 39" Wide.

★ FULL 4" FIBERGLAS INSULATION.



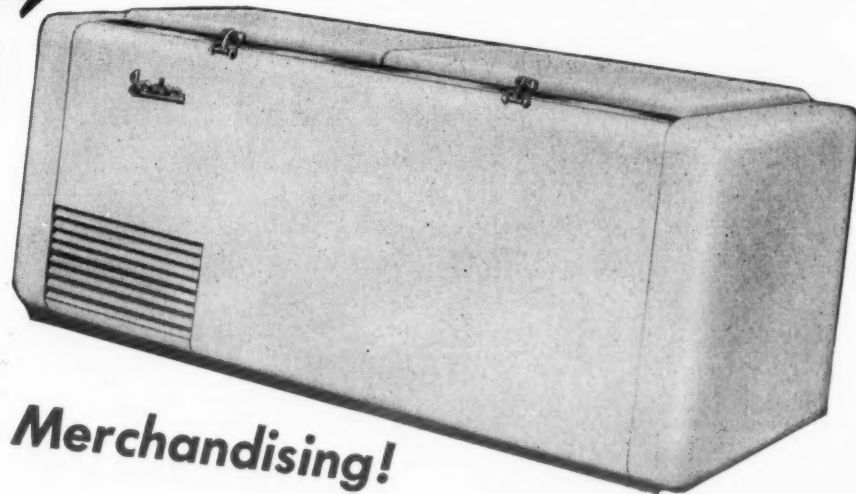
### JORDONETTE 3 1/2 CU. FT. REFRIGERATOR with Porcelain Work Top

For kitchenettes, studios, recreation rooms, professional offices, field offices, trailers, under-counter use.

#### SPECIFICATIONS

- ★ 34 1/2" High ★ 24 1/2" Wide ★ 25 1/2" Deep
- ★ 2 Ice Trays ★ Interior Light ★ Fiberglas Insulation
- ★ All-welded Steel. Bonderized, WHITE PORCELAIN Interior: White Baked Enamel Exterior. PORCELAIN WORK TOP.
- ★ 1/4 H.P. HERMETIC. 5-Yr. Warranty Available.

## "Town and Country" HOME and FARM FREEZERS FOR DOMESTIC OR COMMERCIAL USE



### • Ideal for Ice Cream Merchandising!

Demand for JORDON "Town and Country" Freezers rises with the temperature and emphasizes the fact that these models in both 16 and 24 cu. ft. sizes, are exactly right for a substantial percentage of your prospects. Their practical, ample size, and real freezing ability suits large family home use, farm requirements (especially now!), and commercial display or storage use. Locker plants too, have found that JORDON freezers are profitable adjuncts to their regular business and are selling

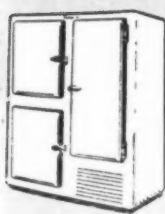
or leasing them in great volume throughout the country. **FEATURES INCLUDE:** Heavy-duty, all-welded steel construction, Bonderized and finished with Hi-Baked White Enamel. 5" Fiberglas insulation. "Free-Air" Automatic Temperature Control with exclusive JORDON "Freeze-wall." Adjustable to sub-zero for fast freezing or ice cream storage. Insulated doors—easy-lift type. Adjustable dividers. SELF-CONTAINED CONDENSING UNIT. **AVAILABLE IN 16 AND 24 CUBIC FT. MODELS.**

Almost a half-century of refrigeration designing and manufacturing experience gives a "plus value" to every JORDON product.

# Jordan

AMERICA'S MODERN COMPLETE LINE

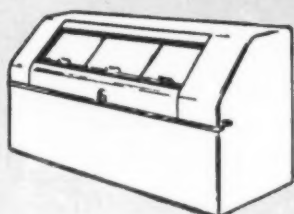
WRITE FOR COMPLETE CATALOG  
**JORDON REFRIGERATOR CO.**  
Factory and Sales Division  
58th St. and Grays Avenue  
Philadelphia 43, Pa.  
CABLE: "JORDONREF" BEIgrade 6-4510



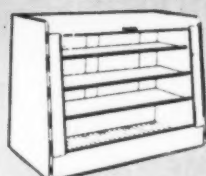
REACH-IN REFRIGERATORS



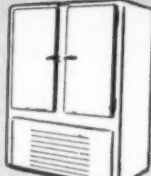
DOUBLE DUTY DISPLAY CASES



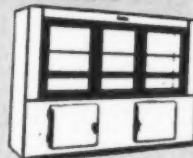
BEVERAGE COOLERS



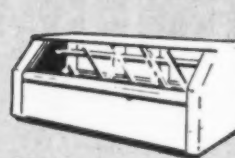
FULL VISION DISPLAY CASES



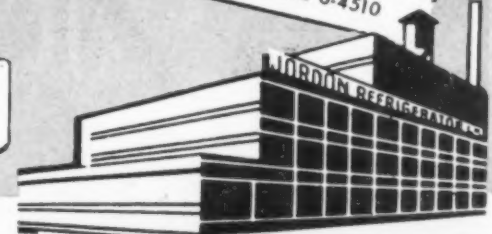
STAINLESS STEEL REACH-INS



WALL DISPLAY CASES



STAINLESS STEEL DISPLAY CASES





## 21 National Groups Set To Participate In Third Farm Electrification Conference November 17-19

NEW YORK CITY—The third annual National Farm Electrification Conference will be held Nov. 17, 18, and 19 at the Congress Hotel in Chicago, it has been announced by Frank E. Watts, conference chairman and director of the Rural Electric Informational Exchange.

As in past years, the program will feature forum discussions and addresses by outstanding speakers from industry, government, agriculture, education, and publishing. Among these scheduled to be heard is Clifford R. Hope, chairman of the Agricultural Committee of the House of Representatives.

The program is under the direction of George A. Rietz, manager, Farm Industry Div. of General Electric.

The conference brings together annually several hundred leaders in agriculture, industry, educational institutions, government, farm organizations, and the electrical and farm press.

Problems discussed are related to ways in which electricity can become as important a force in agriculture as it is in industry, and range from such matters as proper servicing and installation of electrical equipment to experiments now being conducted in agricultural research.

The conference now has 21 national organizations as participants. These are:

Agricultural Education Service (U. S. Office of Education), American Agricultural Editors Association, American Farm Bureau Federation, American Home Economics Association, American Institute of Electrical Engineers, American Society of Agricultural Engineers, American Society of Mechanical Engineers, American Washer and Ironer Manufacturers Association, Associated Business Papers, Inc., and Canadian Electrical Manufacturers Association.

Also, Edison Electric Institute, Farm Equipment & Wholesalers

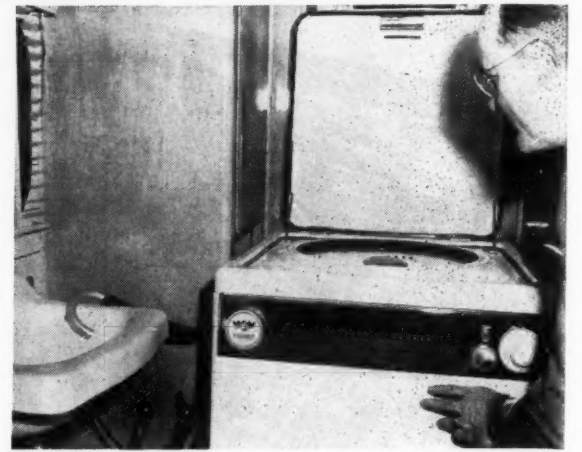
Association, National Association Domestic and Farm Pump Manufacturers, National Board of Fire Underwriters, National Conference of Business Paper Editors, National Electrical Contractors Association, National Electrical Manufacturers Association, National Electrical Retailers Association, National Electrical Wholesalers Association, National Retail Farm Equipment Association, and Vacuum Cleaners Manufacturers Association.

### Williams Named District Head Of G-E Appliance Servicing

CHICAGO—W. G. Williams has been appointed appliance service supervisor for the General Electric Co. in the north central district, it has been announced by W. C. Noll, manager of the technical and educational sections of the company's product service division.

Williams joined the General Electric X-Ray Corp. in 1929 following his graduation from the University of Minnesota, and has been connected with the firm ever since.

## Washing Done—On the Run



Dealer C. E. Kaup looks over the automatic washer which he had installed in a conventional house trailer. It can be hooked into camp water systems for normal operation.

## Automatic Washer Installed In Auto Trailer Clinches Sale to 'Traveling' Prospect

MANHATTAN, Kans.—The time has come when travel-minded but home-loving "Mom" can do the family washing in Chicago, iron the clothes en route to New York City and be ready to wear them upon reaching the destination without leaving the confines of her trailer home.

Such is the case with Mr. and Mrs. J. W. Green, address: U.S.A., who have equipped their modern trailer with a Frigidaire automatic clothes washer. The unique but successful installation was made by the Kaup Furniture Co., Manhattan, Kans. Frigidaire dealer, as a sympathetic follow-up gesture to a customer, whose new occupation caused the family to literally "take to the road."

C. E. Kaup, the Frigidaire dealer, sold the couple the automatic washer while Green was a student at Kansas State college. Upon graduation, Green obtained a position which required him to travel and live at each place for a short period of time. Rather than cause his wife and infant son to live in hotels, he purchased a trailer, equipped with Frigidaire refrigerator, range, and other modern conveniences. Even though Mrs. Green was completely sold on her automatic washer, at this point it looked as though it must be left behind.

However, they broached the subject of installing the washer in the trailer. Although he had never heard of an installation of this type, Kaup agreed to look the trailer over.

Among other things, he found that the trailer was equipped to hook onto camp water systems, and further, that it had an electric water heater.

His mind made up, Kaup called in his servicemen and got to work. Water connections were made, wiring checked, and the washer was moved into position. Initial tests proved successful. Even when the tub went into high-speed spin, a lead pencil on the lid remained standing on end, Kaup testifies.

Because the washer can automatically wash clothes thoroughly, rinse them twice, and spin them damp-dry in less than one-half hour, it is proving ideal for trailer-travel with a baby. Many light articles come out of the washer ready for ironing, eliminating much outside drying for Mrs. Green. The washer does not require floor bolting and can be pushed aside when it is not in use.

### County Property Tax Data Shows Rise In Appliance Ownership

CHADRON, Neb.—A gain of more than 300 electric and gas ranges, and proportional gains in other home appliances including refrigerators and freezer lockers, was shown over 1947 in the personal property tax schedules for Dawes county, which is the first to break down such data for the state in 1948.

# FASTEST SELLING because they're FASTEST WORKING

INLAND

*"Magic Touch"*

ICE CUBE TRAYS

free ALL cubes instantly

There is no other ice cube tray like it! You simply lift the "Magic Touch" lever—gently. There are your ice cubes—all separate, free and dry in the tray. Use one or more cubes now. The rest are instantly ready later.

That's all there is to it. You do not have to handle and twist icy blocks of frozen cubes. There are no unhandy separate ice receptacles. There are no dropped cubes, no muss,

fuss or bother such as you find with ordinary ice cube trays.

So, for real selling help, be sure to have the demonstration value of Inland "Magic Touch" Ice Cube Trays. Insist that your new refrigerators come equipped with them.

INLAND MANUFACTURING DIVISION  
General Motors Corporation, Dayton, Ohio



## Distributorship Wanted for California

### FROZEN FOOD CABINETS

we have probably sold more home freezers in California during the last seven years than any other distributor.

we buy in carload lots on sight draft terms

#### References

DUN & BRADSTREET  
BANK OF AMERICA  
SHERER-GILLETT OF MARSHALL, MICHIGAN

## MODERN APPLIANCE CO.

(Established in 1941)

SAN MATEO, CALIFORNIA



ARE YOU NEGLECTING THE WIDE-OPEN, BIG-VOLUME

MARKET OFFERED BY POTENTIAL TIME PAYMENT

BUYERS OF COMMERCIAL REFRIGERATION EQUIPMENT?

YOU WILL FIND THEM IN MANY FIELDS OF COMMERCE

...EAGER TO MODERNIZE THEIR SHOPS. YOU WILL

FIND IT EASY TO SELL THEM WHEN YOU SHOW THEM

HOW SIMPLE IT IS TO DO WITH COMMERCIAL CREDIT

FINANCING. YOUR COMMERCIAL CREDIT REPRESENTA-

TIVE WILL BE GLAD TO HELP YOU DEVELOP SUCH

SALES. TALK IT OVER WITH HIM.

## COMMERCIAL CREDIT CORPORATION

*A Subsidiary of Commercial Credit Company, Baltimore*

MORE THAN 300 OFFICES IN PRINCIPAL CITIES OF THE UNITED STATES AND CANADA



## Belle Lawson Builds a Business by Providing Dealers With Frozen Dinners for Freezer Demonstrations

By George M. Hanning

DES MOINES, Iowa — Supplying appliance dealers all over the country with frozen dinners for use in freezer demonstrations has proved to be a profitable business for Belle Lawson, president of Belle Lawson Foods here. And there is evidence that it has been profitable for the dealers, too.

One dealer in South Dakota, who purchased a number of her frozen dinners to serve at a home freezer demonstration, reported that the affair was so successful that he sold \$48,000 worth of merchandise as a result of it, according to Mrs. Lawson.

Mrs. Lawson, wife of a local dentist, started her enterprise in her own kitchen two years ago. Since then, her business has grown to the

point where she is now franchising distributors in key cities around the country to prepare frozen meals and delicacies from her recipes and to sell them under her name on a local scale.

Current items in her line include chicken croquette and chicken turnover dinners, packages of chicken prepared in a variety of styles, Spanish fried shrimp, Viennese potato balls and cakes and potatoes au gratin, eight different varieties of fruit pies plus chocolate and mince, Vichyssoise, onion, and bean soups, six different types of salads, and a variety of biscuits, muffins, and rolls.

The idea of selling frozen prepared meals grew out of Mrs. Lawson's long experience and talent as a hostess and her experiments in home freez-

ing. She said that she began experimenting around with a freezer back in 1939.

She found her freezer to be an immense help to her in preparing for parties and large gatherings.

"I loved to fix up nice things for parties and I found that I could do that best by preparing large quantities of hors d'oeuvres and sandwiches ahead of time. I expanded this idea until I had everything I needed for a complete meal in the freezer. Then it was only a matter of thawing out and warming the foods and they were ready to serve."

"I had developed so many of my own recipes for various dishes that my friends many times suggested that I might freeze and sell those dishes. I turned the idea over in my mind and finally decided to try it."

Once started working on a commercial scale, her foods came to the attention of several home freezer manufacturers.

Maytag thought that her packaged dinners and delicacies would dress up freezers on display and give prospects a better idea of what can be done. The company recommended that its dealers purchase \$15 assortments for use in their display freezers.

Philco home economists also have made use of her foods in freezer demonstrations and recommended them to the Philco dealer organization.

## Started In Her Own Kitchen



Belle Lawson exhibits some of the packages of frozen delicacies made from her own recipes and frozen in freezers located in her white-tiled kitchen.

Whiting, too, has pointed out to its dealers the advantages of using her foods in their freezer demonstrations. Mrs. Lawson said she has filled orders for some dealers for as many as 100 dinners at a time.

"All the dealer has to do is tell me how many dinners he wants and when he wants them. We see that they get to him in time," she declared.

Dinners are packed in dry ice for shipment and can be sent in this way anywhere in the country. However, the necessity of packing them in dry ice makes for bulkier packages and increases shipping costs, she noted. She hopes to get around this difficulty by her present franchising plan.

Though she has laid down no iron-clad rules on what provisions will appear in her franchises, Mrs. Lawson is considering setting the franchises up so that a local distributor will handle the entire operation and management of the kitchen in his area.

He will do his own purchasing, preparing the foods, and selling within his territory. It will be his business and will operate on its own merits.

However, Mrs. Lawson plans to keep control by having all foods sold under labels supplied by her. She will retain the ownership of all recipes and the right to inspect the distributor's kitchen so as to assure maintenance of her quality standards.

Constant high quality foods, she insists, are a must for the successful operation of this type of business.

Mrs. Lawson said that if a local distributor should hit upon a specialty recipe—for enchiladas, for instance—he would send the recipe to her and

she would test it in her own kitchen.

If the recipe passed freezing and quality tests, it would be added to the Belle Lawson line and the recipe would become her property and available for use by all distributors.

Though her business is still small, dollarwise, Mrs. Lawson feels that it has finally developed to the point where it is showing good profit possibilities. Her present kitchen is located in the basement of a modern community shopping center.

It is large enough to allow five cooks to operate efficiently in preparing and freezing foods. Mrs. Lawson has additional cooks available to work a second shift when particularly large orders are received.

The kitchen is equipped with three 11-cu. ft. Whiting freezers, a 36-cu. ft. reach-in refrigerator, and an 8 by 10 ft. walk-in cooler. However, this equipment is rapidly becoming inadequate to handle her production.

Though much of her business has gone to home freezer dealers, Mrs. Lawson explained that her interest is selling foods, not freezers. Nevertheless, she expressed keen interest in freezer sales and said she was glad to help the dealer in any way she could.

She is convinced in her own mind that no dealer can hope to sell freezers unless he has one of his own and uses it. "How can he hope to convince his customers to live out of a freezer unless he knows what it means to do so himself?" she asked.

Mrs. Lawson also sells her foods to hotels, restaurants, and other institutions. She is currently working to introduce her foods in railway diners.

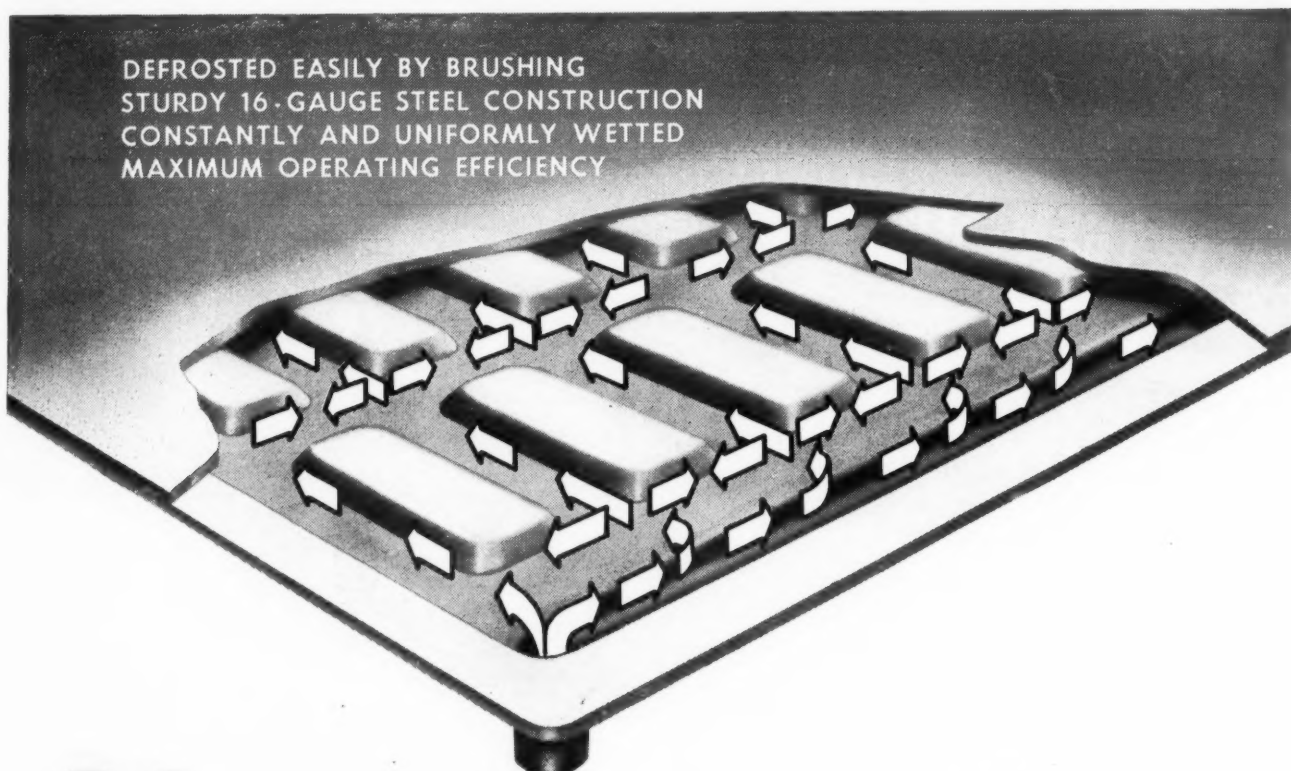
FRIENDLY • COURTEOUS • HELPFUL

**CHASE**

**ONE STOP SERVICE**

COMPLETE STOCKS — PERSONALIZED SERVICE — SATISFACTION

**CHASE REFRIGERATION SUPPLY CO.**  
546-48 W. 119th STREET • CHICAGO 28, ILL.



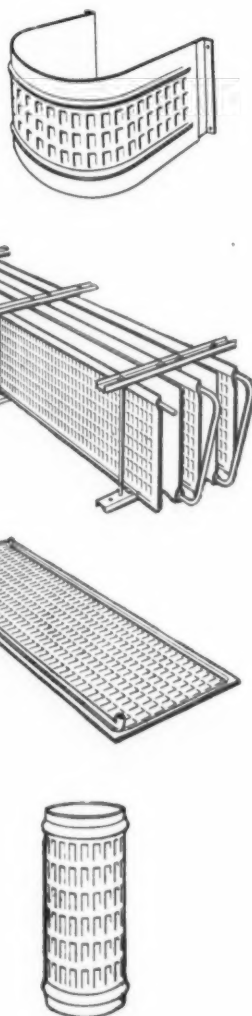
## BTC Evaporator Plates are Basic for Good Refrigeration

From the original Plate-Freezer to the new Continuous Method Freezer, evaporator plates have been basic for good refrigeration. High heat transfer is most practical with food packages in contact with refrigerated surfaces.

BTC Evaporator Plates furnish maximum refrigerated surfaces because they are full-flooded. Special "Cross-Flow" construction gives greater turbulence to the refrigerant for increased heat transfer . . . and permits refrigeration over every square inch of plate surface. Ordinary coils or tube plates allow the refrigerant to flow in only one direction; BTC Evaporator Plates have multiple paths for refrigerant flow — this means low pressure drop for uniform refrigeration and lowest operating cost.

The basic BTC Evaporator Plate design can be easily fabricated into "L", Step, "U", Cylindrical, and other shapes to meet all types of commercial and domestic refrigeration applications. Write Brewer-Titchener for helpful, illustrated bulletins.

**THE BREWER-TITCHENER CORPORATION**  
BINGHAMTON, N. Y.



*Sanitary*  
**Quickfreez**

**TRIZONE**

*For Every Food Keeping Need*

4.5 cu. ft. of normal refrigerator operating at 40° Ave. with 6.25 cu. ft. of zero frozen storage for 250-300 lbs. of meat. 48 1/2" W x 28" D x 40 3/4" H. No. C-1148 **\$399.50**

**SANITARY REFRIGERATOR CO.**  
FOND DU LAC, WISCONSIN  
Manufacturers of Quality Refrigerators for Over 40 Years  
QUICKFREEZ Farm Locker Plants Since 1939



## Elimination of Frozen Food 'Opportunists' Seen Boon to Processing Field

PITTSBURGH—A nationwide program to educate the housewife in the benefits of frosted foods is scheduled to start in September, W. M. Walsh, president, National Association of Frozen Foods Distributors, told the first Pennsylvania Merchandising Clinic on Perishable Foods held here recently.

"We in the frosted foods field are well on our way to solid business," Walsh told the retail food merchants attending the clinic. "In fact, in the next two or three years," he predicted, "the frozen foods business will settle down to a half-dozen good producers."

"The frozen foods business," Walsh continued, "is following exactly the same stages as the radio business. It started out with 2,000 radio manufacturers; but there are only 200 manufacturers now, and five of these 200 get 90% of the business. Today, firms with manufacturing experience in electrical appliances are doing the business."

"In frozen foods," Walsh continued in comparison, "Birdseye started out. Then you heard all sorts of brand names. For a while manufacturers had to place an eskimo or an igloo on their package or it wouldn't sell. Then, gradually, the leaders emerged."

"Today, we have emerged from a hectic period," said Walsh, "and business is settling down. The frozen food opportunists have been eliminated."

"Yet up till now," Walsh continued, "no one could even attempt to forecast the future of frozen food: everybody was freezing foods, and foods you even couldn't freeze were frozen. The foods many producers froze were just 'junk.'"

"Now the picture has changed," Walsh continued. "First, producers have learned what foods to freeze. Where formerly as many as 35 different vegetables had been 'frozen,' producers now believe only 16 vegetables are suitable for freezing. Among fruits, the types that may be frozen properly has dropped from 24 to four!"

"Second," said Walsh, "a number of the good processors are getting into the frosted foods field—Libby and Dole, for example—making the processing outlook appear bright."

"Third, there are many more refrigerated cases on the market. You can get sure delivery of a case in 24 hours. Fourth, where confined distribution had been a bugaboo, today there isn't a crossroad, any place, where frozen foods can't be bought."

"The dealers big problem today," said Walsh, "is to get more volume. Mrs. Housewife still can learn more about frozen foods. Too many housewives still are obsessed with the cold storage idea and are reluctant to admit that frosted foods are (a) more economical and (b) have a higher mineral content."

"Yet for economy, for example, two pounds of fresh peas today costs more than 50 cents, while better frozen peas cost only 25 to 30 cents. And even hospitals and the better restaurants now are recognizing frozen foods."

"Orange juice has become very popular in the last two months," Walsh concluded. "Our average output (W. M. Walsh is a partner, Morrison & McCluan, one of the largest frozen food distributors in Pittsburgh's tri-state area) used to be 150 cases. Now we are selling better than 1,000 cases a month."

## 4 Twin Cities' Groups Schedule August 'Fiesta' To Give Home Freezer Sales a 'Shot In the Arm'

MINNEAPOLIS—A "Home Freezer Sales Fiesta" will be conducted by dealers and distributors in conjunction with Northern States Power Co. and three dealer and electrical associations during the month of August, with an aim of setting a new peak in home freezer sales in the Twin Cities area.

The promotion will include a series of educational meetings for electrical industry members to tone up "flabby selling muscles"; freezer demonstration clinics for consumers; advertising featuring the advantages of freezing to preserve fresh fruits, vegetables and meat products; sales contests, with an all-expense paid three day vacation trip to Chicago for the top salesman and his wife.

Preliminary to the sales campaign, educational meetings are being held Aug. 10 through 13 in the Twin Cities, which is the week preceding the advertising and publicity releases

which will break in Twin Cities' newspapers directed at the consumer Aug. 16, 17, and 18.

These meetings will be directed not only to salesmen but to everyone in the industry related in any way to electric appliance merchandising. The committee in charge of this phase of the promotion is Theodore Losby, chairman; George Hoffman of Frigidaire; William Moravec of General Electric Supply; Paul Nordenson of Nash-Kelvinator; Bud Standeven of Northern States Power; James Harter of F. C. Hayer Co.; and Arthur Starbird of Starbird Electric.

Advertising will break in both St. Paul and Minneapolis newspapers featuring the advantages of food preservation by freezing instead of "old fashioned canning methods," on Aug. 16, 17, and 18. The following week, additional insertions will stress the economy features of the Home Freezer. The advertisements will

also be used to publicize a series of four Consumer Clinics to be held twice daily Aug. 18 and 19 in Minneapolis and St. Paul.

Conducted at a period when dealers, distributors, and manufacturers alike feel the freezer business needs a "shot-in-the-arm," the promotion is expected to boom freezer sales in this area as a direct result of the intense campaign. All the angles have been played and hardly a merchandising principle has been left untouched, a spokesman for the industry said.

More than 14,000 lines of advertising will be used by the four groups actively promoting the Sales Fiesta but individual dealers, manufacturers, and distributors are expected to tie in their own advertising messages with the promotion which will make some kind of a record for this type of campaign, it is believed.

The total of eight consumer clinics have been arranged by a committee

of home economists from Hotpoint, Frigidaire, Philco, General Electric, Deepfreeze, and Northern States Power. They included Jean Williams, Marie Disbrow, Mary Carmody, Margaret Beddeor, Judy Potter, and Val Thorson, Alma Peterson, and Henrietta Quilling.

All distributors cooperating in the promotion will display home freezers in the auditoriums of Northern States Power in St. Paul and Minneapolis where the consumer clinics will be conducted. Distributors of frozen food products and suppliers of freezing equipment will establish their own displays tying in with the theme of the campaign.

The clinic committee consists of A. H. Kessler, chairman; John Stephenson, Frigidaire; E. T. Christman of Roycraft Distributing; James Pause of Reinhard Brothers; H. D. Gibson of Beamish Co.; H. E. Rasmussen of Graybar; and Samuel Greisch of Maytag.

The associations sponsoring the gigantic promotion are the Minneapolis and St. Paul Appliance Dealers Associations, Northern States Power, and North Central Electrical Industries.

*When the customer  
can't make  
up her mind...*

**POINT TO THE  
DU PONT SEAL**

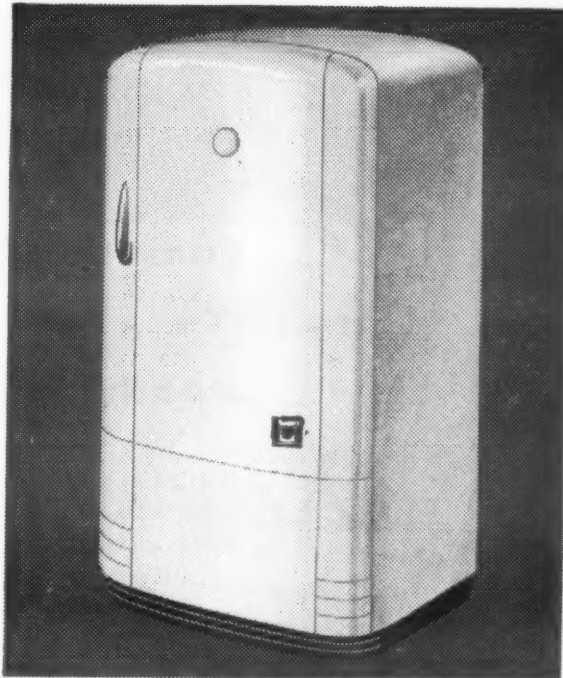


### It identifies America's leading kitchen appliance finish!

Flash a brief—but effective—message on a quality finish by showing the "Dulux" seal to your prospects! It assures them at a glance that they're getting a finish incorporating color retention, mar resistance, and outstanding good looks for years of service. And, at the same time, you can tell them, too, that "Dulux" is rigidly pre-tested!

If your manufacturer supplies you "Dulux"-finished appliances without the seal, ask him to include it hereafter. It paves the way to quick sales . . . assures your customer of the quality of the product.

**HERE'S SELLING MADE EASIER!** FREE new informative booklet gives you profitable "selling points" for appliances finished with "Dulux." Send coupon today for your copy!



E. I. du Pont de Nemours & Co. (Inc.)  
Finishes Division, Dept. AC-89  
Wilmington 98, Delaware

Please send, free of charge, your new illustrated booklet, "Inside Information on the Outside."

Name \_\_\_\_\_ Title \_\_\_\_\_  
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**DU PONT DULUX**  
REG. U. S. PAT. OFF. BETTER THINGS FOR BETTER LIVING... THROUGH CHEMISTRY

for draft and bottle  
beverage coolers...

IDEAL  
**Speed-Freeze**  
PRODUCTS

IDEAL COOLER CORPORATION  
2953 EASTON AVE., ST. LOUIS 8, MO.



More Than 100 Eastern Dealers Attend Graybar Sales Meeting

ROCHESTER, N. Y.—More than 100 Buffalo and Rochester area dealers attended a sales training meeting at the Sheraton hotel, sponsored by the Graybar Electric Co. V. J. Corsaro, division appliance manager, cited the great need of a sales training program to cope with the advent of the buyers' market.

McCoy Names Appliance Mgr.

ALBANY, N. Y.—J. Parke O'Connor has joined the McCoy Tire Co. here, as manager of its home appliance department. He formerly was buyer and sales manager of appliances for W. M. Whitney Co. of Albany.

WE ARE SPECIALISTS in the Export of Electrical Supplies and Equipment

and would like to represent several additional manufacturers on an exclusive basis.

We are especially interested in representing manufacturers of the following lines:

- Air Conditioning
- Refrigeration
- Fans

DEVERO COMPANY OF AMERICA

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13% of Philadelphia's Refrigerators Need Major Repairs or Replacement, Survey Shows

PHILADELPHIA—More than 70% of the mechanical household refrigerators in this city are six years old or older and 13.5% of them need major repairs or replacement, a consumer analysis survey of the Philadelphia market conducted by the Philadelphia Bulletin indicates.

The survey is the third annual study of the buying habits of local families to determine how many families buy what specific products. It covers everything from baking powder to automobiles and includes frozen foods and some household appliances.

Method of taking the survey is that founded by the Milwaukee Journal and used in 10 other cities. The surveyors divided up the city into seven sales districts and determined the rental averages for dwelling units in the area. They sent questionnaires to 5,036 selected families so that returns would reflect high, medium, and low income groups in true proportion to the population.

As there are an estimated 506,980 families in the city, whose population in 1940 was 1,931,334, the size of the

sampling was considered more than adequate to give an accurate result. From the sampling the results were projected to picture the total number of families using different products.

For example, the survey found that 98.5% of Philadelphia families, 499,430 of them, owned some type of refrigeration and that 82.8% of these, or 413,759 families, owned mechanical refrigerators. The other 17.2%, or 85,671 families, owned ice boxes.

The survey determined what rental groups owned these refrigerators and ice boxes and the ages of the units. This data is shown in Tables 1 and 2.

Asked "If you were to replace your present refrigerator, what kind (ice, electric, or gas) would you buy?", the consumers indicated that they were highly in favor of electric refrigeration (78.2%). Largest group in favor of electric refrigeration was in the lowest rental group. (See Table 3.)

Each of 12 different brands of refrigerators were represented by ownership among at least 1% of the families interviewed.

Table 1—Type of Refrigerator Owned—by Rental Groups 1948

	Mechanical Refrigerator		Ice Box	
	Per Cent	Families	Per Cent	Families
Over \$50	95.2	173,960	4.8	8,758
\$40 to \$49.99	88.6	86,544	11.4	12,483
\$30 to \$39.99	79.4	88,691	20.6	23,054
Under \$30	56.9	54,564	43.1	41,376
Total	82.8	413,759	17.2	85,671

Table 2—Age of Refrigerators 1948

	Mechanical Refrigerator		Ice Box	
	Per Cent	Families	Per Cent	Families
1 year or under	13.0	53,658	5.8	5,034
2 to 5 years	14.0	57,785	28.8	24,664
6 to 10 years	42.5	175,973	31.1	26,678
Over 10 years	30.0	124,128	32.4	27,785
Don't know	.5	2,215	1.9	1,610

Of those refrigerator owners who said their units needed major repair or replacement, the largest number was in the highest rental bracket. Fewer units required replacement or repair than last year, however.

For percentages and number of families with appliances needing major repair or replacement, see Table 4.

Ownership of some other electrical appliances were found to be as follows: washing machines (conventional and automatic) by 60.3% of families interviewed; vacuum cleaners, 71.8%; toasters, 71.5%; food mixers, 24.4%.

In all cases, ownership of these appliances was more frequent among higher income groups than lower income groups. In all appliances except washing machines, 1948 ownership percentages were higher than

in 1947. In 1947, 62.4% of the families had washers.

The survey showed that there were 14 different brands of washers owned by 1% or more of owner families, 13 makes of vacuum cleaners, nine brands of toasters, and 11 makes of food mixers.

Frozen food purchases were found to be slightly up over 1947, with 57.9% of families buying them. The highest percentages (67%) were among high rental families and varied in direct proportion with rentals down to the lowest percentage (43.4%) among low rent families.

Buyers indicated that 93.3% of them bought frozen vegetables, 51.7% of them purchased frozen fruits and berries, 18.3% bought frozen fish, and 16.1% bought frozen meats and poultry.

Table 3—Replacement Preference by Types—by Rental Groups 1948

	\$50 & Over		\$40 to \$50		\$30 to \$40		Under \$30		Total	
	%	Families	%	Families	%	Families	%	Families	%	Families
Electric										
1948	77.5	141,644	76.4	83,255	77.9	87,081	82.1	78,725	78.2	390,705
1947	79.0	96,042	75.4	70,265	74.8	103,805	77.3	113,060	76.7	383,172
Gas										
1948	21.9	40,067	22.8	24,866	20.7	23,154	15.3	14,698	20.6	102,785
1947	19.5	23,687	23.5	21,896	23.5	32,544	17.1	24,980	20.6	103,107
Ice										
1948	.2	403	.7	705	1.1	1,208	2.6	2,517	1.0	4,833
1947	1.5	1,791	1.1	995	1.7	2,389	5.6	8,261	2.7	13,436
Don't know										
1948	.4	604	.1	101	.3	302	.....	.....	.2	1,007

Table 4—Major Repairs or Replacements Needed—by Rental Groups (Reported by Renters and Owners)

	\$50 & Over		\$40 to \$50		\$30 to \$40		Under \$30		Total	
	%	Families	%	Families	%	Families	%	Families	%	Families
Refrigerator										
1948	15.4	15,604	11.6	7,550	12.9	9,463	13.1	8,960	13.5	41,577
1947	15.8	11,300	14.1	8,071	15.9	12,107	16.6	15,033	15.8	46,511
Radio										
1948	23.6	23,859	28.3	18,423	26.2	19,228	26.9	18,322	25.9	79,832
1947	28.0	19,976	24.6	14,024	28.9	21,994	30.5	27,544	28.3	83,538
Vacuum Cleaner										
1948	28.5	28,792	25.4	16,510	20.3	14,900	14.6	9,966	22.8	70,168
1947	26.9	19,169	27.2	15,538	22.6	17,252	15.5	14,024	22.4	65,983
Washing Machine										
1948	21.5	21,745	21.7	14,094	21.2	15,604	16.5	11,275	20.3	62,718
1947	29.7	21,187	25.1	14,327	24.3	18,463	19.3	17,454	24.2	71,431
Cooking Range										
1948	16.7	16,913	15.3	9,966	17.8	13,087	21.0	14,296	17.6	54,262
1947	15.3	10,896	15.9	9,080	16.4	12,511	19.6	17,757	17.0	50,244
Electric Iron										
1948	11.6	11,678	12.2	7,953	13.8	10,168	14.9	10,168	13.0	39,967
1947	12.0	8,576	14.5	8,273	14.6	11,098	15.0	13,519	14.1	41,466
Water Heater										
1948	8.8	8,859	9.1	5,940	12.5	9,161	12.5	8,557	10.6	32,517
1947	9.2	6,558	9.3	5,347	9.8	7,466	9.3	8,374	9.4	27,745

the Life Saver for fresh fruits and vegetables —



COLD, crisp, fresh fruits and vegetables perfectly preserved have that "pick-me-up" appeal in this modern Warren refrigerator.

Many different types of refrigerators make the Warren franchise the most attractive for qualifying dealers today. Address Department 204 for full franchise details.

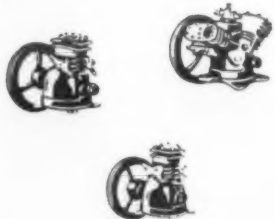


The WARREN COMPANY INCORPORATED  
905 MEMORIAL DRIVE, S. E. ATLANTA 1, GEORGIA



Triple inspection and careful selective fitting of all parts is standard procedure at Tecumseh's high speed production plant. Above, rigid crankcase inspection holds cylinder bore to .0002" (two ten-thousandths of an inch) round and taper.

Now! Famous Chieftain Single, Twin and 4 Cylinder Compressors Ready for Immediate Shipment!



Bottlenecks have been broken, material shortages licked . . . and, now again at last, genuine Chieftain Compressors are being produced in sufficient volume to assure immediate shipments . . . in unrestricted quantities . . . for all replacement installations as well as for assembly by manufacturers into their own products and equipment.

Chieftain, you know, has consistently set the quality pace for the industry . . . has pioneered such important advances in compressor design and manufacture as mass precision machining methods, forced feed lubrication for reciprocating parts, automatic cylinder lubrication, "Chieftainizing" connecting rods to prevent scoring, plus many, many others. And these are only a few of the reasons why smooth, quiet, dependable Chieftain Compressors have become the standard of the industry . . . a few of the good basic reasons, too, why it pays to insist on genuine Chieftain Compressors for new equipment and all replacement installations.

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Tecumseh, Michigan

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WORLD'S LARGEST INDEPENDENT PRODUCER OF COMPRESSORS AND CONDENSING UNITS FOR THE REFRIGERATION INDUSTRY



## Franklin Wedge Named Assistant to President Of Ansul Chemical Co.

MARINETTE, Wis. — Franklin Wedge, former eastern manager for Ansul Chemical Co., has been appointed assistant to the president.



He has moved from Philadelphia to the company's main office here. With this assignment, Wedge, a well-known figure in the refrigeration industry, climaxes an 18-year career with Ansul. He is a member of the American Society of Refrigerating Engineers as well as the American Chemical Society.

Wedge was graduated from the Sheffield Scientific School of Yale university, class of 1918. During World War II, he served as a member of the Coast Guard Reserve.

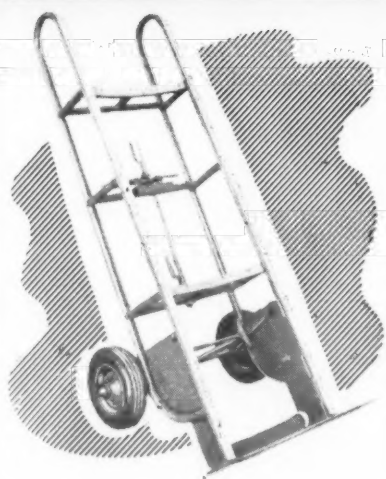
## Century Nets \$1,026,993 On Sales for Six Months

ST. LOUIS—A net profit of \$1,026,993 on net sales of \$11,310,493 for the first half of 1948 has been reported by the Century Electric Co. here. A net surplus of \$4,904,678 had accrued by June 30, the company's interim report added.

## 5 Industry Members Get Posts On U.S.C. of C. Committee

WASHINGTON, D. C.—Among the newly appointed members of the U. S. Chamber of Commerce Manufacture Department Committee for 1948-49 are Melvin H. Baker, president, National Gypsum Co.; E. S. Evans, Jr., president, Evans Products Co.; R. C. Ingersoll, president, Ingersoll Steel Division, Borg-Warner Corp.; Edmond E. Lincoln, E. I. du Pont de Nemours & Co.; and E. J. Schwanhauser, vice president, Worthington Pump & Machinery Corp.

## 1 MAN NOW DOES THE WORK OF 2



SAVE 50 to 60% of your hauling costs with the Easload Appliance Truck.

This scientifically balanced truck carries full weight of load on 10" cushion tires. Patented balancing mechanism causes wheels to slide forward for loading—backward, at touch of foot pedal—for free easy rolling. Tubular smooth steel handles for sliding load. All-welded frame. Twin strap ratchets. Appliances fully protected... 11 BIG FEATURES to cut down man-hours and work.

For Refrigerators, Ranges, Heaters, Radios  
\$48.50 f.o.b. Los Angeles  
Immediate Delivery

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EQUIPMENT & SUPPLY CO.  
1317 WILLOW STREET  
LOS ANGELES 13, CAL.

## Refrigerators, Ranges Should Chart Upward Course Through Remainder of Year, IEEDA Seers Predict

SPOKANE, Wash.—If the record of past years is any guide, sales of refrigerators and ranges should continue to pick up slowly through December. Ranges, which began to accelerate in July, can be expected to maintain their pace at least through the rest of August.

In a letter to members, the Inland Empire Electrical Dealers Association recently compared the sales patterns among appliances for 1940, 1941, and 1947. What it came up with was a cycle that should give some clue to sales for the coming months.

"In 1940, 1941, and 1947 total sales of Inland Empire appliance dealers were higher in July than in any pre-

vious months of those years," the letter stated. "Volume slumped again in August and, (except for last year) in September, before starting its climb to the December peak."

"Prewar, refrigerators hit peak sales in June or July, with sharp and continuous drops in volume after July."

"Last year's shortages caused a different picture, with refrigerator sales dropping in May, picking up a little in June, dropping in July, and gaining slowly from August through November. The continued existence of some shortages suggests that prewar sales trends of refrigerators may not be duplicated this year either."

## Nashville Appliance Sales For June Fall Short of May

NASHVILLE, Tenn.—Local dealer sales of electric ranges, water heaters, refrigerators, and home freezers during June fell below May figures, a report by the Nashville Electric Service reveals.

Refrigerators slipped 13%, ranges 18%, water heaters 19%, and home freezers 55%, the report showed. Unit volume on the four appliances was refrigerators 806, ranges 570, water heaters 507, and freezers 33.

## Airtemp Adds Dealer In Ga.

CARROLLTON, Ga.—The Builders Supply Co. here has been appointed dealer for the Chrysler Airtemp air conditioning equipment.

## Wiley, with Thor 20 Years, Is Director of Purchasing

CHICAGO—Roy W. Wiley, veteran of more than 20 years service with Thor Corp., has been appointed director of purchases by John R. Hurley, president.

Wiley, who started as a Thor man at 18, joined Thor in 1923, and after two months in the service department, became the youngest retail salesman in the corporation's history.

In 1935, Wiley was appointed special sales promotion representative, and when Thor began war production of 3-in. armor piercing shells in 1941, Wiley was taken from his sales post and named to direct the project.

In assuming his new post he succeeds Raymond J. Healy, who has become secretary-treasurer.

# CASCADE

## "IT'S PEERLESS MADE"

### ONE OF THE BIG THREE OF 1948



BACK VIEW



SIDE VIEW

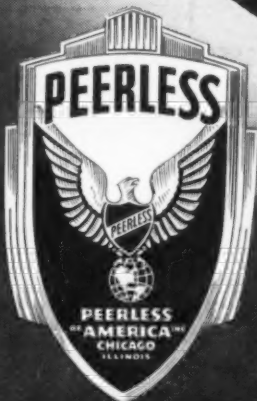
● It's new! For the first time in commercial refrigeration, radiant cooling and convection cooling are combined and the ornamental casing of a motor driven unit is utilized as cooling surface. Fins are attached to the rear of the front panel by means of the copper tubing carrying refrigerant. Warm air from the refrigerator is drawn in at the top, cascaded over coils and discharged

downwardly from the face of the unit. The entire front of the unit radiates cold to products without dehydrating blasts of air. Hugging the wall, saving many cubic feet of usable space, the Cascade Cooler is perfect for reach-in and walk-in coolers. In appearance, it's a beauty of polished aluminum, complete with built-in heat exchanger and suction spinner.

Model No.	List Price	Capacities B.T.U. per Hr. at Given T.D. Between Air and Refrigerant			Motor and Fan Characteristics				Overall Dimensions Including Motor			Connections		
		1"	10"	20"	Motor H.P.	R.P.M.	Fan Size	C.F.M. Capacity	Height	Width	Depth	Liquid	Suction	Drain
68	\$77.00	65	650	1300	1/100	1500	8	190	25 3/4	16 1/2	5	1/2	1/2	1/2
98	88.00	95	950	1900	1/100	1500	8	210	31	16 1/2	5	1/2	1/2	1/2
128	99.00	125	1250	2500	1/100	1500	10	320	37 1/2	16 1/2	5	1/2	1/2	1/2
228	148.50	225	2250	4500	1/30	1000	12	510	41	29	8 1/4	1/2	1/2	1/2
328	171.60	325	3250	6500	1/30	1000	16	730	46 1/2	38	8 1/4	1/2	1/2	1/2
458	217.80	450	4500	9000	1/30	1000	16	860	55 1/2	38	8 1/4	1/2	5/8	1/2
608	268.40	600	6000	12000	1/30	1000	16	1050	73	38	8 1/4	1/2	5/8	1/2

## ENGINEERING DATA ABOVE

FOR BOX TEMPERATURES ABOVE 32°  
FOR USE WITH FREON, METHYL CHLORIDE AND SULPHUR AS REFRIGERANT



# PEERLESS of AMERICA, Inc.

2901 LAWRENCE AVE. CHICAGO 25, ILLINOIS, U.S.A.



## INSIDE DOPE

by GEORGE F. TAUBENECK

(Concluded from Page 1, Column 1)

He recognized that both his own sales organization and the dealers in his territory had grown soft—because on their part was required little or no effort to move wanted merchandise at the moment. That was bad, he decided.

So "By" Spinney did something about it. He called in one of New England's well-known directors of sales training, "Joe" Bradley, and outlined his apprehensive observations.

This fireball, after looking over the situation, agreed that Spinney's big problem was to find ways and means of helping every dealer meet the tougher going that inevitably was to come, and then selling each dealer on the fact that he'd better prepare for it.

So it was decided that every man on the B. H. Spinney sales force should be trained to become an effective sales trainer in his own right.

This meant that first he would have to be "refreshed" thoroughly in the principles of salesmanship; that he would have to be an effective public speaker; and that he would have to know how to conduct a successful sales training meeting.

### Program for Action

Spinney's "refresher course" program for his own men then was laid out as follows:

#### PRINCIPLES OF SELLING.

1. How to build and present an effective product story, stressing quality, value, and advertised reputation.
2. How to acquire a winning sales personality.
3. What makes people buy; personal buying motives, and how to appeal to them; the basic decisions that every customer must make before he buys.
4. What constitutes good "prospecting" and practical "prospecting" systems.
5. How to plan a sale—the "man with the plan."
6. The approach—the importance of the first thirty seconds—how you look, what you say, and how you say it.
7. The demonstration—how to put showmanship into it.
8. Secrets of closing sales.
9. How to handle objections.
10. HOW TO RUN A SUCCESSFUL SALES MEETING.
11. EFFECTIVE PUBLIC SPEAKING.

Spinney's schooling was not a lecture course. It was a working course of participation studies. Several text books were used in these studies—including, we understand, "One Foot in the Door" and "The Marshal's Baton" (which may be ordered from AIR CONDITIONING & REFRIGERATION NEWS).

Spinney's boys studied these books. They wrote about what they studied. They talked among themselves about what they found in these books. They were tested and double-checked to make sure that they understood what they'd read.

Later, they put into practice the techniques and strategies that had been taught—and they had learned for themselves by reading these books.

### Results Came Quickly

Results of this practical training were apparent almost from the start.

Floyd Piron, Byron Spinney's General Sales Manager (who has headquarters at Syracuse) is himself a dynamic sales executive and a keen student of salesmanship. And he insists that he did not believe it was possible for a territorial sales organization to register such upswEEPing gains as his dealers in so short a time after this program was instituted.

Bill Davies, Eastern Division Sales Manager (with headquarters at Springfield) had taken a number of namby-pamby sales courses during the course of his career, and was contemptuous of them. He admitted that he was skeptical about the possibility of holding the interest of an experienced sales organization four hours a night once a week for seventeen weeks.

But, here is what he reports:

"You will recall that I was afraid our salesmen's enthusiasm might diminish as the course progressed. You can imagine how pleased I am that the reverse of this is true. Though the evening meetings resulted in our boys arriving home at a very late hour, they all agreed that they derived so much from each session that it was worth the effort. We can see a very definite improvement in our sales, not only in volume (which is important) but in a balanced sales job."

Fred B. Spinney, Assistant Treasurer of the company, had this to say:

"We have just completed seventeen weeks of sales training, and the help 'Joe' Bradley and the reading of those books gave our salesmen is without a doubt the best I have ever seen in all my years."

### Case Histories

The record of each individual salesman who conscientiously studied and learned speaks for itself.

For instance, take the case of Arthur Hill, one of Byron Spinney's salesmen in Springfield. Last month Mr. Hill rang up \$121,000 worth of business for this distributorship. This is an outstanding job for any wholesale salesman—especially when we can look back to the time when a salesman who did \$25,000 per month would be considered a King of his profession.

Another example:

Bob Sweet, one of Spinney's salesmen operating out of Syracuse, had an opportunity to put his sales training course to work at a dealer-and-distributor sales meeting sponsored by the public utility in Binghamton, New York, shortly after he had been indoctrinated.

Bob was one of three wholesale salesmen who were presenting their products to the group. The two previous speakers had run over their time. The audience was restless and fidgety. Chairs squeaked.

Bob admits he was nervous, but he felt that he knew his stuff; and here, he was sure, was his opportunity to put his newly-won sales training into practice.

His presentation was devoted to a relatively new-and-unknown specialty appliance. He "did it up brown." The audience aroused from its lethargy, after he "got going" and showed keen interest in his imaginative presentation.

The result: a gleefully satisfactory number of orders for this new appliance from the dealers present, and a substantial order from the utility.

As Bob puts it: "That one experience more than paid off for all the nights I spent studying, listening, and reading those books."

Newell Cross, one of the younger men in Spinney's field organization, confessed that (before taking this "refresher" course) he knew his product well but for some reason or other he was not making the sales he should.

He felt that most of his dealers had two strikes on him before he started. When he learned the importance of the "you" attitude in selling, and after he had absorbed the "One Foot in the Door" story, however, he barged into every dealership in his territory, with a vigorous portrayal of how that dealer could merchandise his products more profitably.

He was a "man with a plan"—he was bursting with new ideas to help his dealers make more money.

In turn, he developed confidence in

himself as result of this new "you" approach and attitude.

Six weeks after he had read all the books and soaked up all the lectures, his sales had increased to the extent that he was doing more than four times the business that he did when he enrolled in the Spinney School.

### More Case Histories

Paul Sweedler from New Haven had the problem of training and "selling up" a promising-but-lethargic dealership in a major trading center. Through his sound merchandising counsel, and through the sales training meetings he conducted for this dealership, he was able to develop a mediocre account into a major outlet in a comparatively short space of time. Paul, when quoted as to the effectiveness of the B. H. Spinney training program, sums it up tersely: "It works."

At the conclusion of these exhaustive educational sessions, seasoned veterans of the appliance business like Fred Dunn, Fay Woodruff, George Garrey, Art Ward, Grove W. Loveland, Paul McLaughlin, Jim Gaedeke, F. E. Burgess, Ed Taggart, Ed Talbot, Charles Steger, Art Hill, and Art Maturo, admitted that they could now speak before an audience with confidence and poise. That, in itself, was an immensely invaluable usufruct.

The younger salesmen of Spinney's organization, like Francis L. Sullivan, William Buehl, Bill Shader, and William Gaedeke—all of whose sales during this period showed a remarkable increase—declare that listening to "Joe" Godfrey gave them an entirely new outlook on their jobs.

"Inside" employees who read these books over the week-end, like Frank Solerno and Jackie Carpenter of the Spinney firm, are now sales-conscious too, and have been responsible for the movement of obsolete merchandise.

Mr. Wholesale Distributor: Point your own moral. You, too, have or will have, "By" Spinney's dilemma. And you'll have to do something about it. As for us, we suggest that if you can't hire a "Joe" Bradley, everyone in your organization will benefit by reading "One Foot in the Door" and "The Marshal's Baton" (both of which valuable sales-training books you can order from AIR CONDITIONING & REFRIGERATION NEWS).

# FOR a POSITIVE SEAL

## Install a POSITIVE LOCK



### THE LOCK WITH THE Living Action

This patented lock construction never relaxes its upward grip. When the trigger (A) touches the strike, that under-shot jaw (B) takes hold like a bulldog . . . with constant pressure from a powerful coil spring operating on an off-center plate (C) through the concealed bolt (D). That's why we call it "The Lock with the Living Action" . . . a principle exclusive with products of the Grand Rapids Brass Company.

Ask your jobber for locks and hinges by Grand Rapids Brass

### And that goes for replacement, too!

Service men are coining easy money—making themselves "solid" with their customers—by installing Grand Rapids Brass locks and hinges on leaky commercial cabinets and back bars. Jobs like this may run into three figures—plenty of profit, plus time charges. Ask your jobber for our service manual . . . providing sure-fire selling tips and installation short-cuts with detailed working drawings. Act NOW—here's real money in your pocket.



When it TRIPS  
It GRIPS

**Grand Rapids Brass Company**  
Division of CRAMPTON MANUFACTURING COMPANY  
Grand Rapids 4, Michigan



## Multiplex

Stainless Steel  
BAR  
DISPENSER



- ✓ SPEEDS SERVICE
- ✓ INCREASES PROFITS
- ✓ ELIMINATES BOTTLES

Fresh  
Carbonated Drinks  
COLA, LEMON, GINGER ALE, SELTZER

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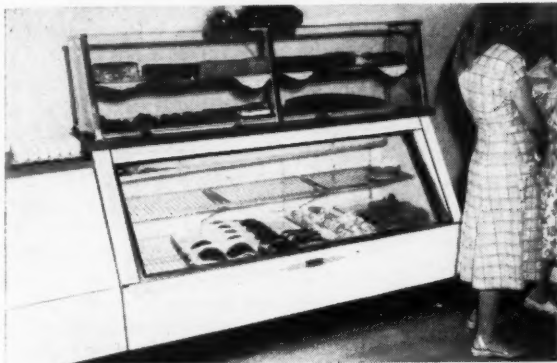
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MANUFACTURERS OF SOFT DRINK DISPENSERS OVER 43 YEARS



## Increased Business Pays for Refrigerated Case



An estimated 20 additional customers are daily attracted to the Kunz bakery in Miami, Fla., by the new refrigerated display case designed especially for sales of whipped cream specialties.

## 20 Additional Customers Buy at Bakery Daily Since Case Installation

MIAMI, Fla.—A new custom-made refrigerated display case, for whipped cream cakes, ice cream cakes, cream puffs, eclairs, and other whipped cream specialties is paying for itself rapidly through the attraction of new customers at Kunz' Bakery here.

The management estimates that the case has brought in around 20 additional customers per day, many of whom buy bread, stollens, and cookies, in addition to whipped cream specialties.

"By far the principal value of the refrigerator case is that it permits us to sell baked delicacies which are not sold in supermarkets which do carry bread, buns, and cinnamon rolls," it was pointed out.

"Most of the customers we have attracted on the whipped cream specialty basis are buying their daily bread purchases as well—and thus, we believe that the case will pay for itself far more rapidly in attracting new customers over and above the direct revenue from whipped cream specialty sales."

## Bakery Refrigeration Shows Big Increase

OMAHA, Neb.—The trend of baking companies to use of refrigerated equipment, particularly in production of Danish pastries and other retarded doughs which require refrigerated storage prior to baking, has shown a definite increase in the Omaha trade area this summer, according to Henry Hansen, sales manager of the Omaha Bakers Supply Co.

Sales made in June and July, he reported, include commercial, four-compartment refrigerators for retarded dough storage to the W. H. Evans Bakery at Pierre, S. D., and the Claussen Bakery at Sanborn, Iowa. Other refrigerated equipment including air conditioned proofers, mixing equipment, ingredient storage and retail display cases, has been ordered by the Bridges Bakery, Bozeman, Mont.; Olson's Bakery, Dennison, Iowa; Fairway Stores, Perry, Iowa; Younkers Dept. Store, Des Moines; H. H. Walmer Bakery, Spencer, Iowa; Fallick Baking Co., McCook, Neb.; Charles Swander Baking Co., Rapid City, S. D.; Carl Garnos Bakery, Presho, S. D.; Herb Claussen Bakery, Sanborn, Iowa, and Clive Bobardus Bakery, Red Cloud, Neb.

## Guide Gives Independent Market Operators Tips on Solving Store Remodeling & Modernizing Problems

CHICAGO—To assist independent retailers planning store remodeling and modernization, the National Association of Retail Grocers, 360 N. Michigan Ave., Chicago, has just published a revised, expanded, and completely illustrated 73-page step-by-step "Store Modernization Guide."

The Guide, prepared so that the best available advice might be put into the hands of retailers at a time when thousands are undertaking remodeling and modernizing in their stores, is a compilation of a number of articles by store engineers and other experts in the field. Others are by retailers themselves who have practical experience and detail costs to back their suggestions. All are accompanied by actual plans which can be adapted with little difficulty to an individual store.

One article in the Guide dramatizes the special NARGUS service to its members—the Store Layout and Remodel Service—and emphasizes the

successful remodeling of hundreds of stores each year by this plan.

Separate articles deal with new store fronts, floor plans, fixtures, floor coverings, lighting, equipment of all kinds, air conditioning and heating, traffic control, parking, future planning, self-service, super market layouts, wall and ceiling, window treatments, and even ideas for utilization of basement space and for more efficient loading platforms.

The Guide describes the special uses of such things as glass blocks, ventilation, soundproofing, various styles of gondolas, lighting of all types, flooring, insulating board, wood veneer and tileboard for walls, racks, window display props, bulkheads, shelves, conveyor belts, in addition to many other items for remodeling.

In introducing the booklet, the National Association of Retail Grocers points out that "no subject in retailing today seems to hold greater

interest than that of modernizing."

It continues, "While modernization is the keynote of today's planning for tomorrow, many different roads lead to the same goal. New fronts, floors, fixtures, redecorating, relighting—each run into considerable sums of money. In the aggregate, relatively few merchants can afford to consummate the entire modernization in a single operation. For every retailer that can do so, there are thousands who will only be able to swing minor improvements one step at a time. Further delivery of materials and equipment is, and will continue to be, difficult to obtain for a few more months.

"Under the circumstances, what are the first sound and practical steps a retailer may take regardless of his financial ability and the size of his store? They are two in number: (1) Make a thorough-going analysis of the store from top to bottom, plan the modernization as a whole, so that all changes will be in harmony. List the costs in detail. (2) Establish a 'store modernization budget.' The latter will enable you to amortize expenses systematically, before they are contracted for."

# Freezing Facts

by Super

## Two-at-a-time tactics



One of the favorite stunts in the trick bowler's repertoire is polishing off an "impossible" split without batting a bicuspid. He simply rolls two balls down the alley at the same time! You better not try it in a league game, though. The other team will raise a squawk... and the pin boy might demand a raise in pay.

A two-at-a-time operation is also a specialty of the Servel Supermetic plant. A high-precision boring machine turns the cylinder bores of two Supermetic compressors at the same time... producing perfectly true, exactly spaced cylinder bores that are accurately aligned at a 90° angle to the crankshaft.



This double-boring process is only one of the many precision operations that help assure you a condensing unit that will maintain long records of low-cost, trouble-free service through the years. Servel condensing units are made in all types and sizes for applications up to 5 H. P. Send for free copy of "Servel Supermetic." Address Servel, Inc., Division ER, 1808 Kentucky Avenue, Evansville 20, Indiana.



Continuously serving  
THE REFRIGERATION  
INDUSTRY  
Since 1919



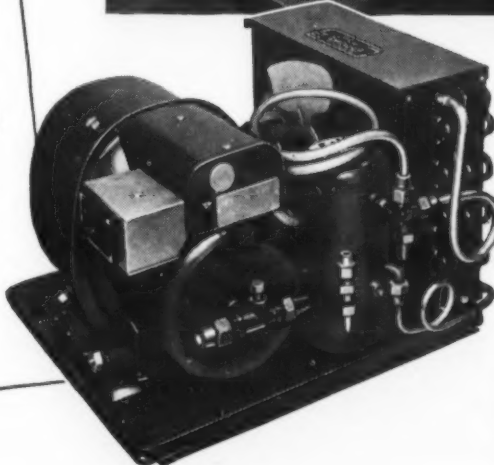
**• OIL SEPARATORS**  
Double filter for double efficiency! Models for all installations from 1/2 H.P. to 10 H.P. Underwriters Laboratories Approved.

**• HEAT EXCHANGERS**  
Shell and coil type for FREON and Methyl Chloride. Sizes: 1/2 to 50 tons. Increase capacity on all cooling systems. Underwriters Laboratories Approved.

Servel's new "Supermetic" condensing units will serve dealers and fixture manufacturers in every vital field:

1. Store Fixtures
2. Milk Coolers
3. Home Lockers
4. Beverage Coolers
5. Vending Machines
6. Room Coolers
7. Farm Freezers
8. Water Coolers
9. Industrial Cooling
10. Vehicle Refrigeration

**Servel**  
SUPERMETIC



**ACME INDUSTRIES, INC.**  
Jackson, Mich.  
Your Jobber can supply you—or write direct.



## NOW Triple Service IN ONE OASIS

- ★ Properly Cooled Drinking Water
- ★★ Refrigerated Storage Space
- ★★★ Two Full Trays of Ice Cubes

The new Model OBR OASIS is a streamlined three-in-one beauty—the biggest profit news in the water cooler industry! ★The water cooler serves 6 to 12 people with properly cooled drinking water. ★★Its Monel Metal refrigerated compartment holds 24 average-sized bottles of carbonated beverages or the equivalent. ★★★Its two aluminum ice cube trays hold 28 full-sized cubes.

Temperature of the refrigerated compartment is constant, at 35-38° F.—an exclusive feature. Sweatproof compartment door has a neat push-button latch that can be locked shut when desired. Entire cooler requires only a 15-inch-square floor space. Simply plugs into electrical outlet. Built by the world's largest maker of electric drinking water coolers. Write for complete details—mail coupon today.

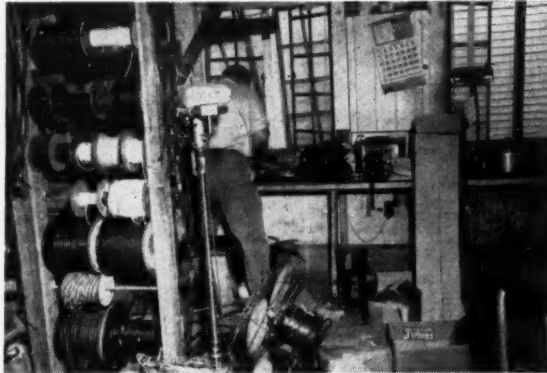


The EBCO Manufacturing Company  
401 West Town Street, Columbus 8, Ohio

Rush details on new triple service OASIS, model OBR!

Name \_\_\_\_\_  
Firm \_\_\_\_\_  
Street \_\_\_\_\_  
City \_\_\_\_\_ Zone \_\_\_\_\_ State \_\_\_\_\_

## Repair Shop Builds Goodwill



At the left is a section of the small appliance repair shop at Lowry Electric Co., Inc. This Coral Gables, Fla. dealer uses his service department to impress his customers and boost sales.

## Florida Dealer 'Sells Service First, Then Appliances' To Gain Customer Confidence

CORAL GABLES, Fla.—"Sell service first, then appliances" summarizes a merchandising policy that has paid rich dividends for the Lowry Electric Co., Inc. here. Before any appliance sale is closed at Lowry's, the customer is taken on a tour of the firm's service departments for all types of electrical appliances.

Service is a prime traffic builder, the Lowry management believes, and every effort is aimed at convincing the customer that Lowry can and will give service.

Lowry's appliance operation is a separate division that developed 12 years ago out of the firm's thriving electrical contracting business. As an electrical contractor, Lowry maintains a staff of journeymen electricians and specializes in large instal-

lation projects particularly in the commercial field.

As an appliance retailer, the Lowry firm has five full-time appliance repair specialists working in its store on Coral Way. Two work on electric ranges, one on refrigerators, one on small appliances, and one on radios. Four salesmen work both outside and on the floor selling the dozen leading brands of appliances that the store handles.

Before a customer even enters Lowry's appliance showroom, she is impressed with the store's desire to render service. In each of a series of Moorish arch windows running across the front of the store, she sees a different electrical appliance and a sign reading "We maintain an efficient repair department."

### PATRONS VISIT REPAIR SHOP

Once inside, a salesman conducts her down a center corridor to see Lowry's small appliance repair shop, radio repair shop, and major appliance repair shop. At the same time she gets a peak at the heavily inventoried parts room and the busy delivery dock.

"That's the way we insure that the customer has every confidence in buying her appliance from us and, incidentally, to sew her up for future sales," Eldon Miller, service manager, declared.

Lowry, still in the process of expanding its sales force, has settled on straight commission as the fairest means of compensation.

"We considered drawing accounts and commissions, a straight salary, and bonus sharing plans," Miller asserted, "and finally determined that straight commission brings out the best from any specialty man."

"Although Lowry Electric Co. contracts residential wiring in many projects and large homes being built in the Coral Gables area, we have not attempted to convert journeymen electricians to specialty appliance salesmen."

"We think of appliance selling as a peculiarly different operation and one which requires specialty men. While we can draw upon the electrical contracting division for service help, all of our selling will be in the hands of men selected for appliance selling only."

### EMPHASIZES INDIVIDUAL SALE

Another facet of Lowry's service emphasis policy is the store's preference for selling appliances to individual customers rather than contracting them out in large consignments to apartment houses and housing projects.

"We will always be doing repair business with the individual home owner, and it is his goodwill we are striving to earn," Miller explained. In line with this thinking, the company attempts to make no profit out of its repair facilities other than a small mark-up.

As a result, its small appliance repair trade, estimated at more than 500 jobs per month, has grown so large that the usual estimate system of figuring charges for customers has been dispensed with. Instead, Lowry makes a "flat-rate charge" based on the brand of appliance and type of repair to be done.

## Lino Furniture Co. Purchased By Newly Organized Firm

BUFFALO — The newly formed Birnbaum's Furniture Co. Inc. has purchased the business of the Lino Furniture Co. Inc. at 294 W. Ferry St. and has formally reopened the three-story building which handles a wide variety of appliances.

Birnbaum's Furniture was formed by Joseph Birnbaum and his cousin, Albert L. Birnbaum, both of whom have been associated in the furniture field for many years. The store building has 10,000 sq. ft. of floor space.

## EASIER FINISHING LIGHT AND STRONG

### ...AND THE LOW COST WILL SURPRISE YOU!

As-cast surfaces of this refrigeration compressor block, sand-cast in aluminum by Alcoa, are smooth and sound. Where machining is required, you can do it faster.

Save up to 50% in weight over heavy metal castings without any sacrifice of strength. The weight saving cuts handling costs in your plant and in transit. No painting required to keep aluminum from showing red rust.

Cost of aluminum castings? Much lower than you'd guess. For many types of finished parts, Alcoa Aluminum Castings are competitive with heavy metals. Deliveries are prompt from Alcoa's 8 modern foundries.

Ask the nearby Alcoa Sales Office for prompt quotations on your castings requirements. ALUMINUM COMPANY OF AMERICA, 1975 Gulf Bldg., Pittsburgh 19, Pa. Sales offices in 54 leading cities.

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MODELS FOR USE WITH  
OR WITHOUT PRE-COOLERS

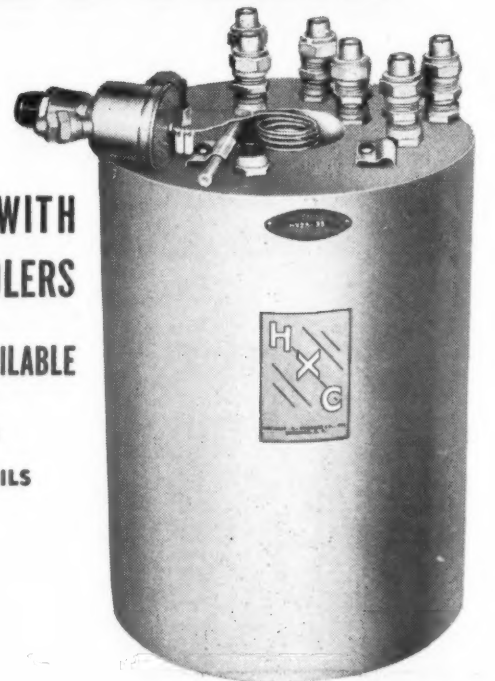
UP TO 4 BEER CIRCUITS AVAILABLE

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STAINLESS STEEL BEER COILS

SIMPLE TO INSTALL

HIGHLY EFFICIENT



SEPARATE BEER, WATER AND REFRIGERANT COILS CAST IN AN ALUMINUM BLOCK

● No accessories such as surge drums, oil separators etc., are needed. No chance for beer to lose its carbonation, or to become contaminated.

The aluminum block provides cleanliness, sanitation, and exchange of heat between copper water coil, stainless steel beer coils and copper refrigerant coil. Coils cannot expand and become damaged in event of freezing.

THE HEAT-X-CHANGER CO., INC.  
415 Lexington Avenue, New York 17, N.Y. Brewster, N.Y.



## Negative Air Pressure, Suction Exhaust, Water Curtain Combined In System To Eliminate Fire Hazard from Open-Type Escalators

CINCINNATI—Controlled air is the basic element of a completely new method of fire protection for open escalators installed in the J. C. Penney Co. Store in the Terrace Plaza hotel building.

The system is attracting widespread attention among architects, consulting engineers, municipal fire officials, and department store executives, according to Thomas Emery's Sons Inc., building owners.

In principle, the new method combines the use of negative air pressures to isolate the fire, a suction air to remove smoke and exhaust it outside the building, and a deluge water curtain around each escalator opening to prevent flames from spreading to other floors.

The air cycle part of the new system was furnished by Carrier Corp., which installed complete air conditioning and refrigeration for the entire Terrace Plaza building.

The J. C. Penney Co. Store, occupying the full seven stories of approximately one-half of the stores part of the building, has open escalators from the main floor to the fifth floor, up and down.

In addition to facilitating the movement of customers from floor to floor, escalators render a distinct sales benefit by providing an elevated view of the merchandise. An open-type escalator naturally increases

the range of vision. However, until the new fire protection plan was evolved, open escalators were considered a fire hazard.

In general, the new system comprises the following:

1—An exhaust ring of heavy gauge welded black iron, with collar intake openings on the outside of the ring, is located around the escalator openings on each floor and is connected by branch ducts to a riser duct which in turn is run to an exhaust fan in a room on the south side of the seventh floor.

2—At the connection of the branch duct to the riser, there is an automatic damper in the branch.

3—"Rate-of-rise" thermostats are mounted just below the ceiling at the columns surrounding the escalator, and on scattered columns in adjoining bays.

4—An auxiliary outside air intake is located in an outside wall on the fifth floor and is also provided with automatic dampers.

5—Special sprinkler heads are located around each escalator opening between the escalator proper and the exhaust air ring. This sprinkler layout is furnished with pilot heads and is in addition to the standard automatic sprinkler system.

If a fire occurs and the temperature rise exceeds the rate of rise setting of the thermostats, these

thermostats (by means of pneumatic and electric control) operate to open the auxiliary outside air damper and the branch damper for the floor on which the fire exists and also start the exhaust fan on the upper floor.

The outside air enters the building through the auxiliary intake, passes down the escalator openings to the floor on which the thermostat and the fire are located and where the entire capacity of the fan is being exhausted. This exhaust creates a negative pressure on this floor to exhaust the smoke and prevent its flow to any other floor.

Through an alarm bell and annunciator system in the engineer's office, the fire condition and its location are transmitted to his attention in order that action may be taken.

If the fire spreads to the escalators proper, the sprinkler pilot heads release to set off a water curtain surrounding the escalator. In this manner, smoke and fire are isolated in spite of the comparatively large floor to floor openings, an exhaust is created to remove the smoke, and the sales benefits of the escalator system are retained.

Tests of the new system have proven so successful that several cities, including Cincinnati, have revised city codes to permit open escalators providing this new method is employed, and indications point to general acceptance by other cities around the nation, representatives of the Emery firm assert.

## Giving Smokes to Patrons Leads Club To Install 5 Precipitrons, Conditioning To Clear Inside Air

RENO, Nev.—One of the most unique combination precipitron and air conditioning installations in the country is being installed at Harold's club, famous gambling landmark in Reno.

The huge Harold's club contains three separate air conditioning systems, for executive offices, a large upstairs dining room, ballroom, and cocktail lounge reached by new stainless steel escalators just installed, as well as another complete air conditioning system for the gaming rooms on the first floor.

The latest system to be installed, which was provided by Savier's, Westinghouse distributor here, is a 50-ton, 2-stage installation powered by two 25-hp. Westinghouse condensing units, and distributing air cooled to a comfortable 80° through a dozen fan stations around the first floor.

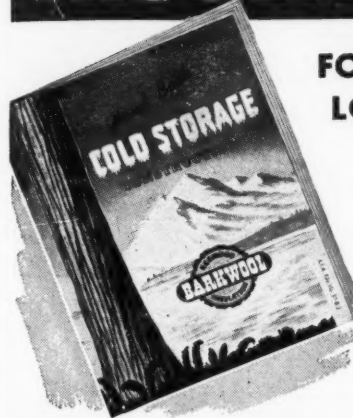
Because Harold's club gives away free cigarettes continuously to players at any of the dozens of gambling games in the club, and concentration of as many as 1,800 people at a time in a space of only 110 x 90 ft., the system was designed to pull in exclusively fresh air, with absolutely no recirculation. This was necessary, according to Savier's, to do away with the extremely heavy concentration of smoke and high heat loads which heavy crowds, 24 hours a day, create in the club.

To that end, an exhaust fan with 7,500 c.f.m. capacity, has been installed in the roof of the club, which exhausts approximately 90% of the air conditioning system's input, the remaining 10% being taken care of by leakage in doorways and windows. The two 25-ton Westinghouse compressors operate in the basement, with 100% fresh air intake, and are thermostatically controlled so that one condensing unit will carry the load during slack early-morning hours, the second cutting in on a "stage" basis when heat load and congestion begins to rise.

While this system proved adequate from an air freshening standpoint, it also demonstrated itself to be prohibitively expensive, due to the fact that a bonanza of tourist traffic kept the club filled to capacity daily ever since the initial installation. Even with the use of heat exchangers, city water cooling jackets on the condensing unit cylinders, etc., the capacity of the system was taxed to the utmost.

So five electronic precipitrons of 7,500 c.f.m. capacity were installed on the first floor and in the basement. Operating continuously, these units removed 85% of the cigarette smoke and permitted the 50-ton air conditioning system to operate on only 25% fresh outside air with the remainder being recirculated.

## INSULATING FACTS



### FOR COLD STORAGE AND LOCKER PLANT OPERATORS

• Whether you are building or remodeling your cold storage or locker plant, you'll find valuable information in this "HAND BOOK ON COLD STORAGE CONSTRUCTION." It tells how to figure heat loss, how to estimate amount of insulating material needed for a job. It gives helpful details on construction and vapor-proofing. It also explains in detail how and why Redwood BARKWOOL gives you these nine vital advantages:

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## A Switch to VAIRIFIED\* AIR IMPELLERS Raised Air Delivery 400%

• A manufacturer of room coolers needed at least 250 cfm for the proper functioning of the evaporator side of his unit. He was getting only 70 cfm from the blower wheel originally used.

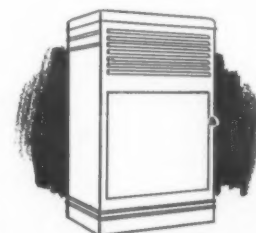
After study of the unit, Torrington engineers recommended a Vairified Airotor wheel and a slight design change. As a result of this, air delivery rose to 290 cfm.

Case after case in Torrington's files proves the superior performance that you can expect from Vairified Air Impellers—and the worthwhile help that Torrington engineers can offer because of their years of experience working exclusively with the problems of air impelling.

Let us work with you toward improving the performance of your product. Just write or telephone—no obligation. Chances are we can save you the most time and money while your product is in the early stages of design.

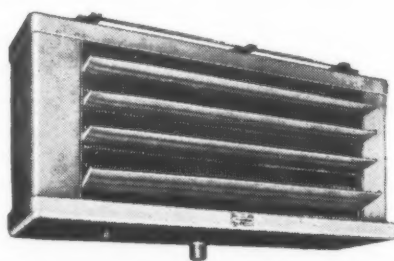
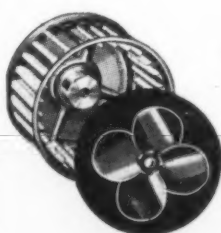
Sales engineers in all principal cities.

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Vairified ... aerodynamically designed for maximum operating efficiency with quietness; guaranteed to perform as rated under NAFM or NEMA Codes; individually gauged for alignment; dynamically balanced. The Torrington Manufacturing Co.

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RIGIDBILT STANDARD AND LOW TEMPERATURE UNIT COOLERS are built in a wide variety of sizes for all commercial applications.

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## They'll Do It Every Time . . . . By Jimmy Hatlo



### Do You Have 'One Foot In the Door'?

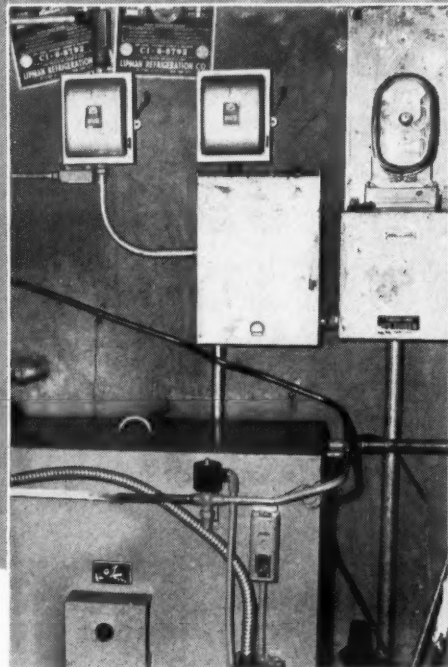
## TENNEY

### AUTOMATIC DEFROSTOLATOR

Amazingly Successful Automatic Defrosting  
for all Food Storage Plants

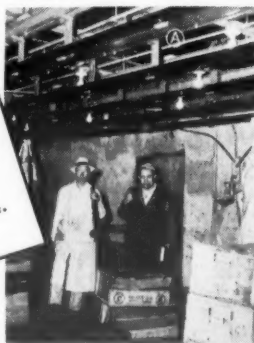
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Muss**

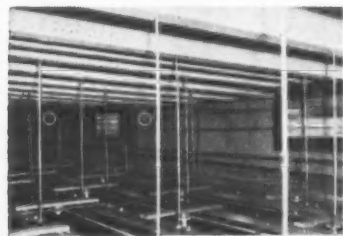


Compact Defrostolator Unit

**VARIABLE** Capacity  
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Range—For All  
Low Temperature  
Applications



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Manager  
Mr. Jake Lipkin  
Owner  
"A" shows location of TENNEY UNIT COOLER



Three Double Tenney Units  
keep space at 27°-28°F. Size  
of space 20' x 55'; 14' ceiling.  
Circles indicate TENNEY Thermo-  
static Ex. Valves.

Here at last is an automatic defrosting system devoid of complications yet which can be varied as to defrosting speed and capacity, and frequency and length of cycles, depending upon load and temperature conditions.

It eliminates the necessity of connecting with high side of refrigeration system, can be remotely located from cold room (the above installation, operates at high efficiency with a 40-ft. run of the hot gas line) and provides year-round operation regardless of weather or load conditions. High efficiency is maintained

regardless of low head pressure in cool basement or other adverse conditions. There are no electrical controls exposed in hot gas lines. Source of heat is completely independent of condensing capacity of refrigeration system therefore location of compressor or Defrostolator imposes no restrictions. This new Tenney development is profitable to users in many ways—control is easily varied—it saves valuable space—eliminates drainage complications—and many others.

#### You'll Like These Features

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## The Business-Managed Power Companies and the Home Freezer

(Concluded from Page 1)

home freezer uses approximately 2.3 kilowatts per 24 hours. The farm freezers, 16 cu. ft. and over, use approximately 5 kilowatts per 24 hours. That means that the small home freezer uses 51 kilowatt-hours, the intermediate size 69 kilowatt-hours, and the large farm freezer 150 kilowatt-hours and up, per month. This load is without any additional investment other than the required capacity, and thus provides a greater earned annual revenue per dollar investment than any other appliance that can be put on the lines. Here, then, is an opportunity for the business-managed power companies to get behind an entirely new service with aggressive promotions through every possible type retail outlet.

It is significant to note that not one single electric appliance, with the possible exception of the radio, received wide public acceptance until it was led, literally by hand, through the pioneering stage by the power companies of America. The pioneering stage of the home freezer, however, started during the war time period, and consisted of word-of-mouth advertising. This influence, together with the millions of rural homemakers using lockers throughout the country, has carried home freezers a long way through the pioneering stage.

Power companies can continue this momentum by launching educational programs and sales promotion activities on home freezers. Now, while new generating capacity is being installed, is the time to plan on keeping this new high-investment capacity operating at a profit. Some types of load develop slowly of their own accord. They fluctuate in volume and desirability. But a profitable load such as the home freezer represents won't just grow. It must be planned, scheduled, and aggressively promoted to assure a steady and adequate growth.

How can power companies stimulate the home freezer business? First, they can teach the homemaker what a home freezer means in terms of convenience, labor saving, and actual money savings. They can run training classes in their home economics laboratories for the dealers and their salesmen. Home economists can stage complete frozen-food training classes, teaching the dealers and their salesmen the art of home freezing, as well as outlining a proper sales story for floor demonstrations to the prospects.

Home Economists of the power companies could call on each new home freezer user to be sure that the homemakers use their home freezers properly. Whenever this happens, users become enthusiastic boosters of home freezing among their friends and neighbors.

Every power company could immediately provide an employee's buying campaign so that every employee would have an opportunity of purchasing a home freezer for his own use on a special employee's finance plan. This has always been the program used in educating the entire power industry to new uses of their service.

Many of the business-managed power companies of America have already started their aggressive promotion on home freezers, and are using billboards, newspaper advertising, direct mail, bill stuffers, and beautiful floor displays with great effect in the communities they serve.

Certainly the power companies' interest in building their own volume (and that of their dealers) will be well repaid by their promotion of freezers. And, at the same time, they will again take their rightful place of leadership in developing a new, lusty, and profitable industry.



## Commercial Salesman Startles Prospects with On-the-Spot Demonstration of Unit



### New Rotary Unit Mounted In Trunk of Car Plugs Into Convenient Outlet

Grocer Pasqua of Dallas is skeptical when Frigidaire Salesman Joe Striegler suggests "Want to see the Meter-Miser work?" so he goes out to the car where Striegler has installed Frigidaire's new rotary commercial unit in the trunk.

DALLAS, Tex.—Prospective buyers of commercial refrigeration equipment here are startled when a salesman for the Joe Hoppe Co. here interrupts his sales talk and casually offers to give them an on-the-spot demonstration of a compressor.

More than likely after looking outside for the salesman's truck and discovering none, the prospect's first impulse is to wonder if he heard right. Salesman Joe W. Striegler then reveals the "gimmick" in his story.

Striegler, an enterprising salesman with plenty of initiative and competitive experience drawn from old pre-war days, is selling Frigidaire's new rotary Meter-Miser compressors for the dealership by the on-the-spot demonstration technique. He has installed one of the units in the trunk compartment of his auto.

He starts his sales talk in a conventional manner, using literature and other sales aids much as any salesman might. But when he reaches the vital point and his prospect is on the fence, ready to topple in either direction, he departs from the conventional by offering an on-the-spot demonstration to clinch the sale.

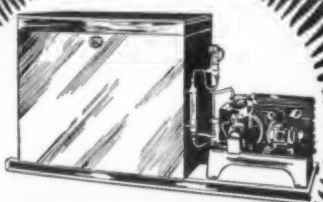
Striegler has only to escort his customer-to-be outside to his car, which is usually parked within a convenient range, open the lid to the trunk compartment, and connect the compressor to the nearest electrical outlet with an extra-long extension cord.

He then demonstrates the compactness, quiet operation, and other salient features of the unit. His venture has proved so successful that the dealership is planning to similarly equip the cars of other commercial refrigeration salesmen.

### Apex Electrical Outfit Gains In First 6 Months

CLEVELAND—Net profit of Apex Electrical Mfg. Co. here for the six months ended June 30 was \$945,170 after taxes and charges, or \$2.73 a common share, compared with \$797,784, or \$2.30 a share, in the corresponding 1947 period, the firm reported.

Net sales were listed as totaling \$19,479,568, against \$15,753,366 in last year's first half. C. G. Frantz, Apex president, said sales of home cleaners, washers, and ironers for the six-month period amounted to 305,394 units, an increase of about 26,000 over the volume in the 1947 period.



### BULK and CUBE ICE MAKERS

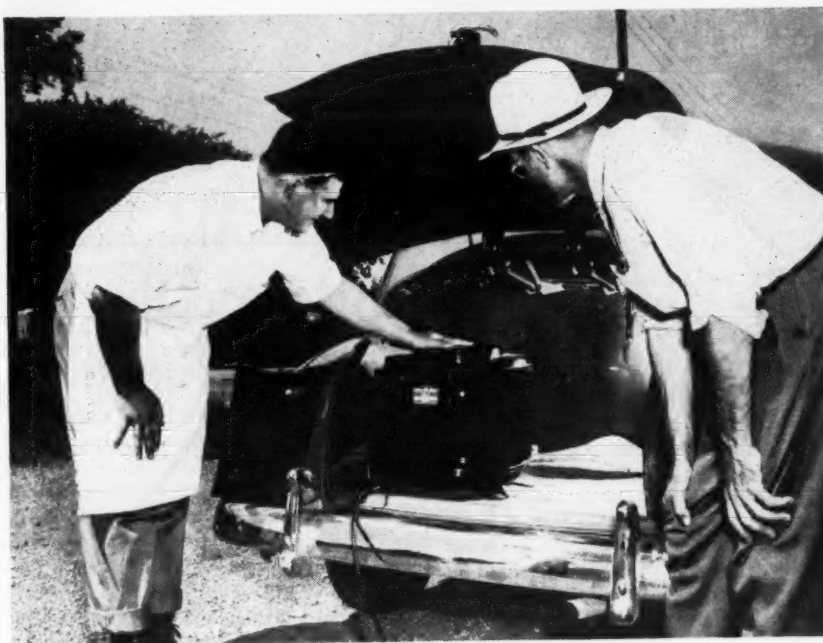
FOUR SIZES — PROMPT DELIVERY

• 250 • 1000  
• 500 • 2000

LBS. DAILY CAPACITY

Self Contained and Remote Electric, Gasoline or Diesel Engine Driven Units. (Refrigeration Engineering Corp.)

RECO PRODUCTS DIVISION  
2020 Naudain Street, Phila. 46, Pa.



Pasqua tests the unit for vibration after Striegler has plugged it in.

## Veteran Market Operators Feature Self-Service Cases In New Store

ST. PAUL—Veterans in the grocery field for 30 years, Mr. and Mrs. M. Senensky have opened a new Central Super Market with a Hussmann open display, 7-ft. self-service frozen food case, a 10-ft. refrigerated produce case, and 11 ft. of self-service refrigerated meat cases.

Completely sold on refrigerated displays, installed by Allied Store Equipment Co., Minneapolis, the Senensky's said the displays "attract more customers than ever before realized with sales way up as a result. Our customers are more than pleased and comment on the cases."

The store also features a 10 x 20-ft. walk-in meat cooler, an 8 x 10-ft. vegetable walk-in cooler, and a specially-constructed overhead canopy for the meat department with plate-glass mirrors which give depth to store. Seven feet of refrigerated dairy cases have also been installed.

## A New Koch Display Case with Endless Appeal



### VERSATILE

for DAIRY PRODUCTS  
PRODUCE  
PACKAGED MEATS

HEIGHT: 56-in. overall.

LENGTH: Nominal 10-ft. In multiple line-ups, each section occupies 118 3/4 in.

FINISH: Porcelain enamel applied to genuine enameling iron, combined with polished stainless steel and high-baked Dulux. Mirror has copper backing.

REFRIGERATION: Designed for remote operation. A 3/4-H.P. unit is normally required.

GLAZING: Genuine Thermopane panels, made up of two panes of polished 1/4-in. thick plate glass.

LIGHTING: Full length fluorescent tubing.

A 3-purpose fixture simplifies dealer inventory problems. It satisfies the requirements of three different customers.

ADJUSTABLE TEMPERATURE: Case is heavily coiled so that temperatures as low as 37 degrees are easily available. For produce and dairy products, where such cold conditions are not necessary, the proper temperature can be reached by simple adjustment of the control.

ADJUSTABLE DISPLAY SHELF: Slope of shelf is easily varied, from level required for dairy products, to the best slant for packaged fresh meats or produce. Easily installed produce dividers make the display attractive and convenient.

ENDLESS FEATURE: Any number of these cases can be set end to end. The display becomes continuous simply by removing the end Thermopane glass panels and installing a narrow shelf section between the adjacent cases.

Here is a case that is selling in impressive quantities to markets, produce stores, dairy stores, and other outlets. It provides dependable self-service refrigerated display. Take advantage of the clamor for self-service fixtures.

# KOCH Refrigerators

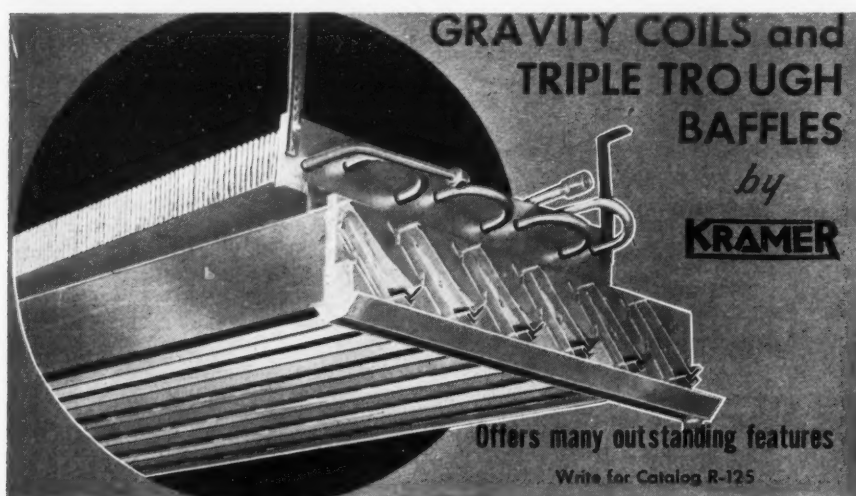
North Kansas City 16, Mo.

SINCE 1883

Write today for details and open territories.

**KOCH FOR QUALITY!**





**KRAMER TRENTON CO. Trenton 5, N. J.**



**"ONE STOP SERVICE"**  
For Your  
**REFRIGERATION  
SUPPLIES and PARTS**  
also Complete Stocks of  
**Pipe, Valves & Fittings**

**Hajoca Corporation**

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## Refrigeration Problems

### And Their Solution

By **Paul Reed**

For Service and Installation Engineers



Paul Reed

### Mystery of the Hidden Moisture (3)

All the time that the boys were swapping experiences out in front of the counter, George, the owner of the wholesale house, was sitting in his office just behind a low partition and could hear the whole conversation.

George, before starting his wholesale business, had carried a tool kit, and was one of the best mechanics in that part of the country. He never lost his interest in the mechanical part of the business and was always ready and willing to help solve a tough problem.

So George went out and joined in: "I overheard your conversation about the mysterious and sudden appearance of moisture in systems that had been running fine for months. I've had that happen to me and I've given it a lot of thought. I've read about everything I could find that had any bearing on it, and I've talked to a lot of mighty able men about it."

"Here's what I've picked up. Maybe it will shed a little light on the general problem of the sudden appearance of moisture, and perhaps it will point out some clues in each of those jobs you described."

"I think that there are clues in what you said; little things that seem to point to the cause of the trouble on that particular job."

#### THE CLUE TO JOE'S TROUBLE

"Take that job you spoke of, Joe. The clue to that one was that you installed it in chilly weather and the trouble showed up when the weather got hot. But first, where was the drier located: down in the basement or up in the shop? And does the shop get pretty cool in cold weather?"

"I don't know exactly why," replied Joe, "but I put the dehydrator in the liquid line up in the store. It ran along a side wall just before it went into the case, and I put it there. I usually put them right near the machine."

"Yes, this user was one of those old fashioned butchers that just can't get used to keeping the store warm. He only has a small stove in the store, and it gets actually cold in there, during cold weather. Then in the spring and summer it gets hot in the store. Do you mean that the temperature of the store is a clue?"

"Certainly the temperature of the store is a clue. I noticed when you were talking about it, that you put the job in during late fall or early winter, and you had no moisture trouble until warm weather came."

#### SILICA GEL HOLDS MORE MOISTURE COLD THAN WARM

"Now, silica gel will hold a lot more moisture when it is cold than when it is warm, so when the store and the drier were about 50°, let us say, it would hold about three or four times as much moisture as when the store got up to about 90°."

"I don't know how the moisture got in in the first place. Maybe there was a good bit in the evaporator coils; maybe the condensing unit itself had quite a lot of moisture in it; the field coils of hermetics are very hard to get dry. Certainly you didn't help things by just purging instead of pumping a good vacuum to, say about 28 or 29 in."

"I don't know that it makes too much difference just where the water actually came from. The point is that it was undoubtedly in the system somewhere when you started it up."

"Why didn't it cause trouble right away? I think that the answer is

that the dehydrator caught it. Wherever it came from, evaporator, suction line, or compressor, the dehydrator picked it up about as fast as it was released and circulated with the refrigerant."

"Apparently, the dehydrator was big enough to hold all of the moisture that came to it. That is, it was big enough when it was cool, say around 50°. Probabilities are that it was not much, if any, bigger than necessary though, because when spring came and the dehydrator warmed up, say to 80 or 90°, the ability of the silica gel to hold moisture dropped to about one third or one fourth of what it could at 50°."

#### WARM SILICA GEL RELEASED MOISTURE

"So naturally the silica gel had to give up two thirds or more of the water that it held, and this water went to the expansion valve and froze it up."

"To get this moisture out at 90°, you had to use about three driers, whereas one drier held that moisture at 50°. So the people that have recommended taking the dehydrator off after it has served its purpose, and leaving it off, were right after all."

"Your case, Fred, sounded a lot like Joe's; equipment very much the same. But with a couple of differences. One was that in your case, the drier didn't give up moisture, due to it's becoming warmer. In fact, you installed your case in hot weather and your trouble occurred in cold weather, just the reverse of Joe's."

"Again, I don't know how the water originally got into the system, but I suspect, Fred, that you got a lot in by letting the tubing and maybe the case coils stand open for several hours during rainy weather while you put that seal on at the locker plant."

#### THE CLUE TO FRED'S TROUBLE

"As I say, I'm not too sure where the water was from August to February. There is a good clue to that though. Know what it was? Remember you had no trouble until the leak let out a lot of 'Freon.'"

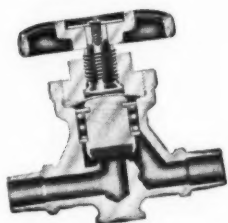
"Maybe your first thought is that you got the moisture in with the new charge of 'Freon.' Could be of course, but I don't think so. For one thing, you had a new cylinder that you got here, and we're pretty careful. Another thing, you charged the 'Freon' into the suction service valve in vapor form, so there could not have been much moisture go in with the 'Freon' vapor."

(Continued on next page)

## Superior Life-Time DIAPHRAGM PACKLESS VALVES

### OUTSTANDING FEATURES

1. Husky one-piece lower stem
2. Controlled stem travel assures "Life-Time" diaphragm performance
3. Scientific lubrication, large bearing surfaces and polished stem heads eliminate wear and assure smooth, easy operation
4. Large drillings give full flow
5. Operates under normal pressure with flow in opposite direction



### Superior ANGLE VALVES

CATALOG NUMBER	CONNECTIONS SIDE	Male Pipe	LIST PRICE EACH	NET WT. EACH LBS.	CODE WORD
104-4B	1/4"	1/4"	\$5.00	.75	Lefmo
104-4C	1/4"	1/4"	5.00	.75	Lefus
104-6B	3/8"	3/8"	5.00	.75	Legoz
104-6C	3/8"	3/8"	5.00	1.00	Legoz
105-8B	1/2"	1/2"	5.00	1.00	Lejac
105-8C	1/2"	1/2"	5.00	1.25	Lekad
106-10D	3/4"	3/4"	6.00		

### Superior LINE SHUT-OFF VALVES\*

CATALOG NUMBER	CONNECTIONS	LIST PRICE EACH	NET WT. EACH LBS.	CODE WORD
204-4	1/4" SAE Flare	\$5.30	.9	Lelim
204-6	3/8" SAE Flare	5.30	1.25	Lelot
205-8	1/2" SAE Flare	5.30	1.5	Lemot
206-10	3/4" SAE Flare	6.60		Lemjo
204-4S	1/4" O.D. Sweat	5.30	.9	Lemiz
204-6S	3/8" O.D. Sweat	5.30	.9	Lenag
205-8S	1/2" O.D. Sweat	5.30	1.25	Lenek
206-10S	3/4" O.D. Sweat	6.60	1.5	Lenov

### Superior BRANCH SHUT-OFF VALVES\*

CATALOG NUMBER	CONNECTIONS	LIST PRICE EACH	NET WT. EACH LBS.	CODE WORD
304-4	1/4" SAE Flare	\$6.25	1.00	Lepem
304-6	3/8" SAE Flare	6.25	1.00	Lepuc
305-8	1/2" SAE Flare	6.25	1.50	Lepwe
306-10	3/4" SAE Flare	7.50	1.75	Leraj
304-4S	1/4" O.D. Sweat	6.25	1.00	Lesak
304-6S	3/8" O.D. Sweat	6.25	1.00	Lesoz
305-8S	1/2" O.D. Sweat	6.25	1.50	Letep
306-10S	3/4" O.D. Sweat	7.50	1.75	Lefuf

Stocked By All Leading Wholesalers

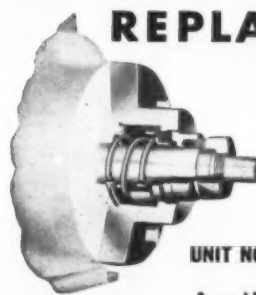
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OFFICES IN PRINCIPAL CITIES STOCKS: CHICAGO (16) - LOS ANGELES (15) - JOBBERS EVERYWHERE

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## Mystery of the Hidden Moisture--

(Continued from preceding page)

"Moreover, you thought that the expansion valve seemed stuck before you added 'Freon.'

"So if the water was in there all the time from August, and wasn't released to the system by the silica gel, where was it?

"I suspect that it was in the receiver. The clue is, that it showed up when the leak caused a loss of some of the charge of 'Freon.'

"Freon-12 will absorb a very tiny bit of water. How much it will absorb depends upon the temperature and pressure. But at most, it will absorb only a few parts of moisture per million parts of 'Freon.'

"If there is more water in the 'Freon' than it will absorb or dissolve, the water just doesn't mix with the 'Freon,' but continues to exist as drops of globules of 'free' water.

"Moreover water is lighter than 'Freon-12,' so it can and does collect as free water, in a sort of globular layer, on top of the liquid 'Freon-12' in the receiver.

"The liquid line feeds out of the bottom of the receiver, so this free water can stay on the top of the liquid 'Freon-12' in the receiver for a long time.

### REDUCED LIQUID LEVEL RELEASED WATER

"But in February your job sprang a leak, Fred, and lost some of its charge. This caused the liquid level in the receiver to drop to the point where the water then fed into the liquid line and the result—a frozen expansion valve.

"Doc, I imagine that one reason that you never have experienced any of these 'delayed moisture' troubles is that your jobs do not use a receiver, nor any surplus refrigerant. That is, you operate with a balanced charge. So if there is any moisture in the system, it shows up right away.

### PELLETS OF ICE IN THE EVAPORATOR

"Another place that water could come from, is from ice in the evaporator. Moisture freezes into little pellets of ice that, especially in 'pot type' evaporators, may stay in the evaporator for months.

"Most evaporators, even the finned coils that operate on a self-defrosting cycle, may go for months without being fully defrosted, especially

at the bottom of the evaporator. If, for any reason, the coil does get fully defrosted, enough that the ice inside melts, it can get swept on to the compressor and finally to the expansion valve, float valve, or capillary and cause them to freeze.

"It is quite a common occurrence to have moisture show up right after a defrost, or after the job has been down long enough for all of the evaporator to get fully warmed up past the melting point.

### CHEMICAL FORMATION OF WATER IN THE SYSTEM

"There is another possibility of moisture showing up after a long period of no trouble. The chemists tell us that under certain conditions, it is possible for water to be actually produced by chemical action. The job you spoke of, Ralph, had had so many things put in it that it is possible that a chemical action had produced some water.

"I don't know that it has even been definitely proven that water has actually been produced in a system; at least, enough to cause trouble, but it could happen, according to the chemists, so maybe it does sometimes.

### MUST BE CONTINUALLY ON GUARD

"This all adds up to greater care on everyone's part, the manufacturer, and the service engineer. Even we wholesalers can help by being careful to prevent moist air from getting into coils, tubing, condensers, and receivers by keeping them capped tightly.

"You wouldn't believe how much water will collect in a coil that is left open. Once I got over a whisky glass full of water out of a 50-ft. coil of 1/2-in. tubing that had been lying around open for a couple of weeks.

"On the whole, manufacturers are pretty careful, but constant vigilance is the price of freedom, not only freedom in the political sense, but also freedom from defects, careless workmanship, and dirt or moisture in the equipment.

"Service engineers can help, too, by always pumping a good vacuum; adding refrigerant in vapor form (except big jobs charged directly from factory filled and inspected cylinders); keeping oil tightly sealed

except when actually taking oil from them; keeping coils and lines capped as much as possible while the installation is being made; cleaning out his service cylinders occasionally; putting a dehydrator on every new installation, but taking it off after a couple of days; and finally, if some moisture does get in, to remove it with a good dehydrator filled with silica gel, activated alumina, or Drierite.

### MORE SERIOUS EFFECTS OF MOISTURE

"Moreover, all this talk this morning about moisture in the system centered around freeze-ups at the valve. We haven't even mentioned the more serious effects of moisture in forming acids that corrode valves, seals, bearings, and other internal parts and attack oils to form sludges and gums."

(To Be Continued)

## Store Ads Tell How Air Conditioning Makes Clerks Happier

BUFFALO—The Music House, 291 Delaware Ave., Buffalo, is using newspaper advertisements to tell how its air conditioning system keeps clerks in a good mood during the hot summer and helps customer service.

Headed "Air Conditioned Clerks," the advertisement stated:

"Probably this is poor public relations, but we must admit that when we air conditioned Music House some three years ago, we did it more for our clerks than for our customers.

"Too many times we had walked into stores to be served by irritable, short-tempered clerks harassed by the heat. None of that at the New Music House, said we.

"And so, at Music House during the hottest days you'll find eager, courteous clerks working in a cool temperature—controlled atmosphere. And you'll notice the difference in the service you receive.

"You, too, will enjoy the air conditioning throughout, even to the individually-cooled listening rooms.

"Incidentally, that's why Music House is open all day Saturday during the summer. People who can't go to the beach or the country like this cool oasis in a hot city. Our clerks, incidentally, get an extra day's vacation during the week."

## Distributor's Conference Discusses Fall Promotions

CLEVELAND—An open house and sales conference was held at the offices and new showrooms of the Cleveland Distributing Co. here July 25 through July 28, at which fall promotions and presentations were discussed.

Cleveland Distributing is the northern Ohio distributor for Gibson refrigerators and ranges, Blackstone washers, Carrier room air conditioners, Elgin kitchens, and Calcinator automatic garbage disposal units.

## Macneal Named President Of Group In San Antonio

SAN ANTONIO, Tex.—The Appliance Association of San Antonio elected Charles L. Macneal of Wolff & Marx Co. its president at a recent meeting.

Harry Harrison of Graybar Electric Co. was elected vice president, and Howard Barsotti of A. C. Toudouze Co., secretary-treasurer.

New directors of the association are: A. W. Kilgore of Southern Equipment Co., Royal James of King Furniture Co., Fred Brinkley of San Antonio Music Co., W. P. Bratten of Straus-Frank Co., and J. A. Harris of Sears, Roebuck & Co. Harris is the retiring president.

The association plans to hold its first postwar appliance show in the municipal auditorium late in October, Macneal announced. The show will last for a week and will have a uniform decorative theme.

U. S. Pat. 2,219,393  
Canada Pat. 394,209  
New Zealand Patent 82,339  
COMMERCIAL DOMESTIC



For standard temperatures or low temperatures "Recold" water defrost ceiling coils are being more widely accepted in every type of installation. "Recold" manufactures equipment to meet every commercial refrigeration need.

**REFRIGERATION ENGINEERING, INC.**  
7250 East Slauson Ave.  
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### AN ADVANCED COURSE

In Refrigeration, Air Conditioning and Heating. Now taking enrollments for September 7 class.

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## VIRGINIA REFRIGERANTS

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Methyl Chloride

"EXTRA DRY ESOTOO"  
Liquid Sulfur Dioxide

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*Refrigerants*

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Distributors for Kinetic's "Freon" Refrigerants

## Rely on PA 100

... because field performance has proved  
the superior refrigerant drying agent is  
**DAVISON PA 100**  
Refrigeration Grade  
**SILICA GEL**



Your jobber stocks Davison PA 100 Refrigeration Grade Silica Gel in the can with the blue label--and in dehydrators charged by the cartridge manufacturers.

To leading Refrigeration

Service Engineers everywhere,

PA 100 spells reliable drying...

dust-free performance, maximum

capacity, fast action, removal of

acids, and corrosive materials,

freedom from caking, elimination

of channeling, safe use, no attack

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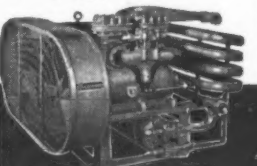
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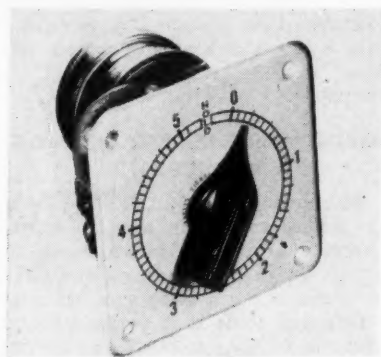
## What's New

### Timer Stop-Lever Permits Re-Use of Same Setting

MOLINE, Ill.—Eagle Signal Corp. here is now manufacturing the Manuflex timer, recommended for use whenever an electrically operated device is to be turned on manually, run a pre-set time, and automatically shut off.

Suggested for use with attic fans, laundry equipment, and cooking operations, accurate timing and dependable operation are said to be assured by the electric motor which has a totally enclosed gear train and sealed-in lubrication. There are no springs to wind or escapements to get out of order, according to the manufacturer.

The large pointer, which can be



Manuflex timer

turned in either direction, is claimed to be simple to set. Standard dials are available offering the purchaser a range of operating cycles from five minutes to 10 hours.

Flush mounting of the Manuflex timer is easily accomplished by inserting the timer into the panel opening from the front. A transparent plastic case offers complete visibility of all contact parts, and the motor is removable without opening the case. Screw terminals are said to facilitate making of wire connections.

Optional features include a stop lever to be used where the same setting is wanted repeatedly. One-hole mounting from the rear of the panel is also available. Dials for other than the standard cycles mentioned above can be furnished for quantity orders, the company points out.

### New Coin Unit Offers Protection Against Loss

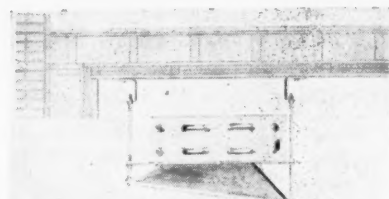
MILWAUKEE—Completely electrical coin operation of all types of automatic and conventional washing machines, driers, extractors, shoe shiners, radios, television, water heaters, and electrical service is now available in a package unit offered by Miller-Harris Instrument Co. here.

This new "package unit" is the result of development and research of two companies—the A.B.T. Mfg. Co., and the Miller-Harris Instrument Co. The A.B.T. electric slug rejector mechanism checks the size, weight, metallic content, and hardness of the coin—thus providing protection from slugs.

The use of a Telechron motor and gearing provides almost perfect accuracy of timing, it is claimed. The Miller-Harris contact mechanism is rated to handle 30 amperes. The electrical interlock system provides protection against loss of coin due to current interruption. Free operation or multiple operation on one coin is impossible.

The entire unit is housed in a heavy steel case with coin vault and coin shutes. It is 100% electrically operated and may be mounted on the machine or on a wall.

Models are available for 5, 10, and 25-cent coins, timing periods of 15, 20, 30, and 60 minutes, and 115 or 230 volt current.



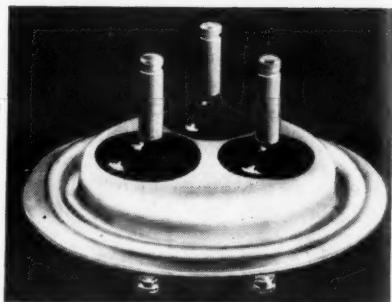
Rempe air-guide baffle

in a sheet toward the floor from the low side of the baffle pan, then rise up on the opposite side of the wall and back to the fin coil, in a steady even flow. This tends to assure an even distribution of air and even temperature throughout the refrigerator or walk-in cooler. Pans are adjustable for proper pitch.

Ceiling brackets are galvanized steel. Hanger rods and nuts are rust-proofed. Baffle pans 18 gauge galvanized steel fully insulated, equipped with 3/4 in. flare connection for drain line. Baffles are always made 8 in. longer than coil fin length. Coil and baffle pan are independently adjustable.

Installation is simple—hangers and spanners are installed then coil and baffle pan are slid into place.

### Glass-to-Steel Terminal Made for Refrigerators



MILLVILLE, N. J.—The T. C. Wheaton Co. here is now equipped to manufacture and supply immediately upon order, a new Tronex glass-to-steel refrigerator terminal.

A design feature is the weld projection shown in the illustration, which relieves the user of the expense and problem of coining or machining the projection in the motor housing.

A new brochure illustrating both types of Wheaton Tronex refrigerator terminals can be obtained by writing the company.

### Coil Baffles Adjust for Even Air Distribution

CHICAGO—A new air-guide baffle that is adaptable to any make fin coil is announced by Rempe Co. here.

More efficient distribution of air and more even temperature are said to be made possible in refrigerators and walk-in coolers when this new air-guide baffle is installed.

This baffle causes cold air to drop

FOR MAXIMUM  
REFRIGERATING EFFICIENCY  
*Specify*  
**STANGARD**  
PRIME SURFACE COLD PLATES



- STANGARD plates are made for various applications, in any size, shape or form, including stainless steel—

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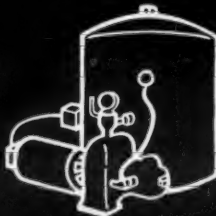
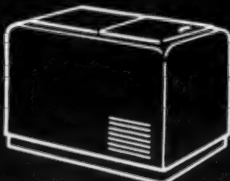
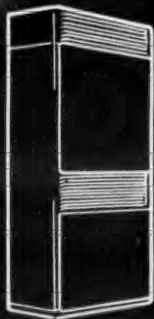
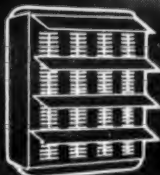
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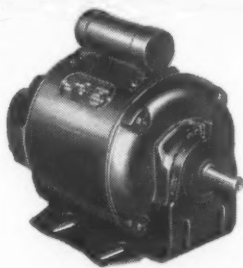


### the Wagner Fractional Horsepower Motor

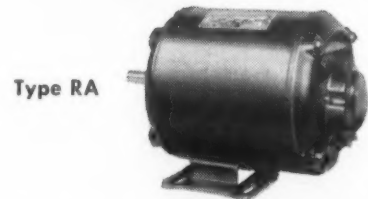
If you manufacture, install, or service compressors, stokers, deep freeze units, pumps, or any of a hundred different motor-driven appliances—you have a special interest in dependable fractional horsepower motors.

Wagner Fractional Horsepower Motors are the first choice of many manufacturers of small machines and appliances. Millions of these small-sized, low-priced motors have been in use for years, giving troublefree performance and building customer satisfaction. Take a tip from these manufacturers and reduce service calls due to motor failure by choosing Wagner Motors. More than fifty-five years of motor building experience stands behind every motor bearing the Wagner name.

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Type RK



Type RA

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## What's New (Con't)

### 'Double-Duty' Case Holds 358 Pints of Ice Cream



UTICA, N. Y.—The Refrigeration Division of Savage Arms Corp. here has just put on the market a new, open-top, movable, "double-duty" merchandising ice cream or frozen food cabinet.

The cabinet can hold 358 pints of ice cream or a comparable quantity of frozen food in two separate sections, according to the manufacturer. Two hundred and twenty-four pints can be kept in the top section for merchandising and 134 pints in the storage compartment below.

Two three-dimensional pictures and places for flavor or label strips and prices are incorporated in the superstructure, which is illuminated by two fluorescent tubes. A variety of scenes is available, and custom pictures showing particular brands of ice cream or frozen foods can be made on special order.

Measuring 51 in. by 30 in. and equipped with special casters, the cabinet is of all-steel construction. Other features listed include genuine vegetable corkboard insulation, stainless steel top, removable panels, slide-out compressor, hermetically-sealed condensing unit, and an all-steel, hydrogen-brazed evaporator.

### 'Aristocrat' Bar Service Resembles Piece of Furniture

BROOKLYN—A new deluxe serving bar, a combination bar, refrigerator, and liquor cabinet, is now being manufactured by Moss Atlas Corp., Brooklyn. It is called "The Aristocrat."

A feature of the Aristocrat is its appearance when closed, for than it resembles a fine piece of furniture.

Being but 42 in. high, 42 in. wide, and 18 in. deep, the bar requires very little space.

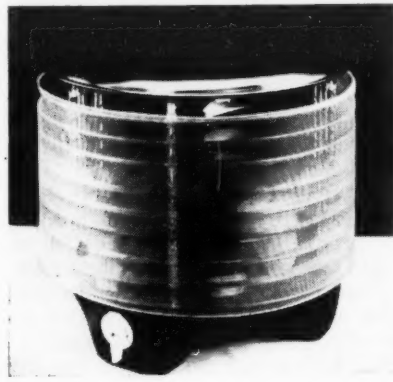
Raising the trap door on the serving area automatically lights up a spacious liquor storage cabinet. With bottles on the serving area, there is ample room in its 8 sq. ft. for every bar accessory. The refrigerator is designed to afford space for tall bottles of ginger ale, club soda, etc., and makes 42 full size ice cubes.

Moss Atlas manufactures the Aristocrat in two distinctive cabinet designs—18th Century and Contemporary.



porary. The first style is available in mahogany and walnut. The finish on the Contemporary design is limed oak, walnut mahogany.

The refrigerator section, with over 3½ cu. ft. capacity, is equipped with evaporator, three self-releasing shucker trays, glass drip tray, dial temperature control, adjustable shelf rack, satin-finish aluminum lining, and fibre glass insulation.



### Warm Air Circulator Runs On 3 Types of Gas Power

GLENDAL, Calif.—A new 20,000 B.t.u. gas-fired warm air circulator, engineered to fit between 2 by 4-in. studs on standard 16-in. centers without furring or special framing, has been introduced by the Williams Radiator Co. here.

Called the Model 20 Warmolator, the unit is designed to work with natural, manufactured, or L.P. gas. It measures 51 in. high by 16 in. wide.

It features a three-way "Hi-Lo-Medium" control knob located at the top of the grille panel, out of reach of small children. A thermocouple safety pilot is standard equipment on the Model 20.

The Model 20 Warmolator is equipped with a finger-type cast iron burner and a fully shielded, ribbed heating element. The louvered grille face completely covers all heating surfaces and is safely and comfortably cool at all times, according to the manufacturer.

### Washable Lumite Plastic Cover Snaps Around Fan

CINCINNATI—The W. W. Welch Co., 700 Glenn building here has recently introduced its "Air-Flight" circulator, featuring a Lumite plastic screen protector cover which is optional.

The new plastic portable circulator, designed to operate from a floor position where the air is cool, functions on a new principle of air circulation, according to the Welch company. The appliance is 14 in. high and has a diameter of 15 in. Weight is given at 15 pounds.

Exterior of the unit is constructed of patented aerodynamically-designed louvers, designed to afford maximum and uniform circulation of air without blasts, noise, or vibration.

The optional Lumite screen, made of Dow's Saran, is 9 in. high and 48 in. long. It snaps on and can be washed as often as necessary, the company points out.

### DISTRIBUTOR WANTED

Individual with capital, or established company who will set up separate operation, for distributorship of new line of nationally prominent manufacturer. One franchise issued in each territory. The product is spoilage prevention equipment sold direct to food processors, restaurants, butchers, beverage plants, packers, dairies, etc. Investment in merchandise required.

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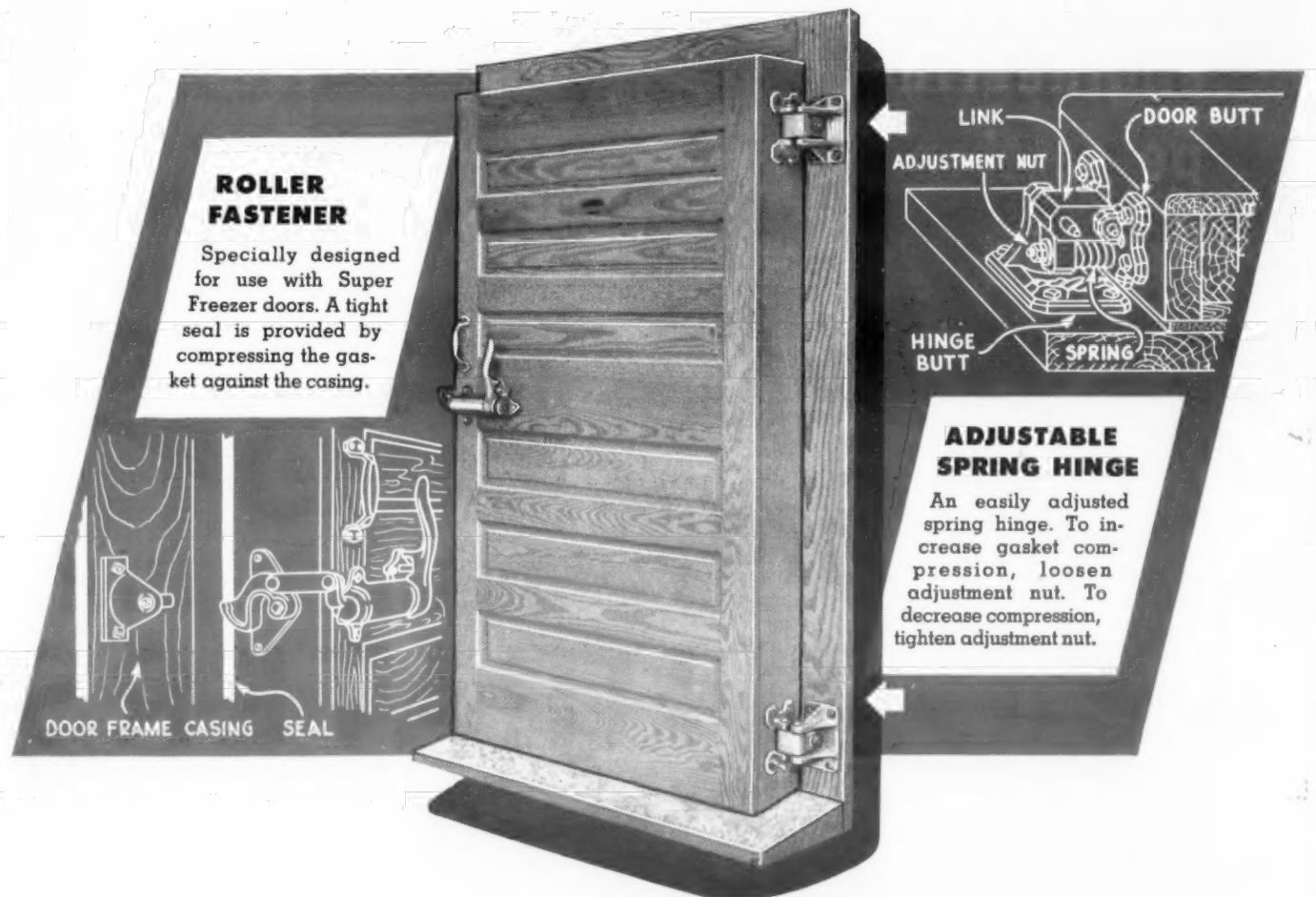
### REFRIGERATION ENGINEER Wanted....

For engineering department of a new subsidiary of an old line company, producing commercial refrigeration units for truck-trailers. Some practical experience desirable but not essential. Please give full particulars. Our organization knows about this advertisement. Your communication will be held in confidence. Write to

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Progressive dealers are tapping a wide market with this space saving double-duty porcelain case. Everywhere groceries, bakeries, taverns, lunchrooms, confectioners, delicatessens, etc., are discovering the great usefulness of the 4' 4300. (Also made in 6' and 8' models, and as a Luncheonette Case with a Bain Marie top.)

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# Show Clinics Reveal Current Thinking of Experts on Store Modernization

NEW YORK CITY — "True modernization of a store requires a degree of scientific approach to the problems of the utilization of space that is seldom found."

"Our present trend in store front design is toward 'open vision.'"

"The louverall ceiling, because of the possibilities of light control with its dramatic effects and practical versatility, has become increasingly more accepted in the lighting field."

These were some of the points accentuated by the prominent retailers, manufacturers, engineers, architects, and designers who spoke at the clinics held in conjunction with the recent Second Annual International Store Modernization Show here.

Speakers discussed current thinking on planning and budgeting for modernization, displays and fixtures, store fronts, store lighting and color, and store layout and traffic.

what is the proper location of merchandise in relation to other merchandise?"

The importance of a comprehensive, carefully-prepared modernization program was also stressed by Daniel Schwartzman, of the American Institute of Architects. In outlining what he considers to be involved in such a program, he said:

The broad principles are exactly the same for the smallest as well as the largest project and the smaller merchant must get used to the idea of putting all of the categories of information to be demonstrated at the disposal of his architect. Observation, good judgment, and experience can be a perfectly sound substitute for the expensive factual surveys sometimes undertaken by the larger store, but they must be fully spelled out as a basis of programming for the architect.

## Elements of Program

"The essential factual elements of a typical program (in addition to the general statements of store policy and the aptitude and background of the store operators) are as follows:

"1. Projected net yearly sales volume. Unless you are willing to state this goal clearly, there will be no basis for an intelligent program.

"2. Percentage of that sales volume to be used as a basis for rental charges. A matter for the client and his accountant or controller to determine, but it is the key to the entire question of how much can we afford to spend on the building project.

"3. Dollars of net volume per square foot of sales area. This will depend, of course, upon the total number of transactions and the size of the average unit salescheck.

"4. Ratio of sales area to non-selling area. It is here that the architect can perform a most valuable service, because this ratio will be the major factor in determining the total annual sales volume of the store.

"If by careful planning, the non-selling functions can be kept to a practical minimum and still permit efficient operation and necessary expansion, then the area for selling may be raised from the average 50% to 60% or more. At an average of \$100 of sales per square foot and normal profit, that increase is well worth anybody's designing efforts."

Also urging careful planning and budgeting, Kenneth C. Welch, vice president of Grand Rapids Store Equipment Co., stressed the rising costs of equipment and furnishings.

"Lighting costs range from 50 cents to \$2 and up per square foot,

fixturing costs run from \$3.50 to \$11 a square foot and up, carpets from 90¢ to \$1.30," he declared.

"This can all figure at accepted rates of interest and amortization and with better than average sales per square foot well over 1% of the net sales. The Harvard figures for 1946 reported expenses in this category of only 1/2% of this. . . .

"When it comes to new construction in central business districts with their typical congestion and inflated land values, and with the necessary even if outmoded building codes, and with present day construction and equipment costs, this all takes very careful planning and better than average sales per square foot to get your real estate cost down to 3 1/2% of your net sales.

"By careful planning I mean planning on a scientific basis and throwing overboard all the old cliches and predetermined ideas about store layout. The fixture and equipment costs are commonly . . . three times that of existing stores in relation to sales in new structures."

## On Planning and Budgeting

A scientific approach to store modernization was recommended by Jay D. Runkle, vice president and general manager of Crowley Milner & Co., Detroit, in a talk at the clinic on planning and budgeting.

"Effective modernization depends upon a carefully conceived 'Master Plan,'" he said.

"In setting up the 'Master Plan,' the 'Time Table' should be determined. The management will have to determine just how long it wants to take to accomplish its objectives without disturbing its working capital.

"In our own store we have consistently financed our improvements out of earnings, and we did not permit our capital or expense outlays to become burdensome in any one year. We have actually added to our 'working capital' each year while carrying on a consistent policy of modernizing our store. . . .

"If a 'Master Plan' has been pre-

pared in the beginning, however, every move that is made fits into the pattern setup, and every dollar spent is serving a useful purpose and does not need to be respent some time later. In setting up a 'Master Plan' the following problems must be considered:

"1. What kind of a store is it intended to be?

"2. What part, or parts, of the business are to be emphasized?

"3. What is the potential sales volume based on the situation in the trading area?

"4. What are the actual and potential sales volume in each department in relation to the total store volume? (Per cent of department sales to total store.)

"5. What are the actual and potential sales per square foot of space?

"6. What is the proper relationship of departments to each other and

## On Designing Store Fronts

During the clinic on store fronts, Charles S. Telchin, of Telchin & Campanella, architects, New York, emphasized that attraction, atmosphere, and appraisal are "the three 'priceless ingredients' which make up the formula for a store-front design that will literally compel a shopper to stop, look, and go in and buy."

"In order to be attractive," he said, "your store front must possess the following attributes:

"1. It must be an individual, frank design of your specific operation, rather than an adaptation of some other store.

"2. It must make a favorable impression on the customers in order to attract them to your show windows and invite close and detailed inspection of your displays.

"3. It must be an integral part of your interior, rather than a separate entity.

"4. It must be designed to attract the customer to enter. . . .

"Atmosphere, our second 'must,' is one of those intangibles that induces a customer to shop in a particular store. If we consider the show windows as a stage, we can readily understand that we must employ every appropriate scientific device, as well as the principle of applied psychology to dramatize the merchandise.

## Don't Be Too Highbrow

"However, we must make certain that this quality of atmosphere is in tune with your type of customer and your type of operation. Too much atmosphere may become a boomerang; therefore, it is wise to analyze your clientele before becoming too highbrow. . . .

"The proper 'atmosphere' stimulates the customers' interest and puts them in the proper buying mood to shop in your store. Naturally, the atmosphere inside the store must carry-through the effects obtained in the store front, and thus insures a favorable and lasting impression of the entire store.

"Appraisal is the third aim of a successful design. It is the quality which transforms admiration and desire into a decision to buy. Appraisal is also the means of identifying your store, and thus possesses a definite advertising value. . . .

"It is well known that the customer is always on guard, and that we are no longer in a sellers' market. The customer wishes, and has the right, to compare your prices and quality with those in other stores down the street. A well designed store will give added appeal to your merchandise, and thereby encourages the customer to shop in your store.

"Every possible arrangement should be made for the customer's comfort and ease of seeing. On a busy thoroughfare, for example, it is highly recommended that the show windows be moved back from the building line, thus enabling the customer to 'window shop' without being pushed around. Every effort should be made to eliminate or at least reduce window glare and reflections. . . .

"Appraisal has another important function. Namely, to indicate to the public your type of operation. It adds prestige and gives the customer

a feeling of trustworthiness. With merchandise pretty well standardized, and prices almost uniform, it is most important to you that the customer shops in your store rather than elsewhere."

After emphasizing proper setting, unity of display, and commanding attraction in another talk on store fronts, Elmer A. Lundberg, director of architectural design, Pittsburgh Plate Glass Co., sketched a picture of trends to come.

"I believe that I would be doing you an injustice," he told this clinic, "if I did not say that our present trend in store front design is toward 'open vision.' Its value is . . . that it places the entire shop on display.

"Our problem is still one of selling and with merchandise becoming more plentiful it will require, salesmanship which is persuasive and displays that can create a desire. Shopping today is for values and we must show effectively as much merchandise as possible in less space.

"Simplicity will be had with a skillful use of limited decoration. Better visibility will be had with a further reduction in size of all necessary construction and obstruction.

## Customers, Be Seated!

"Greater uniformity of a stores parts with equipment integrated so that collectively they are related. There will be a better co-ordination of exterior and interior. Scale is important and will be evidenced more and more.

"Attractive surroundings with featured departments and sections can be expected. Seating or lounge area for special selling and also special displays suggesting how an item can be used will do much to aid selling. . . .

"Flexible displays and window arrangements will allow for easier and more frequent changes.

"For ease in shopping many areas or groups provide for sheltered sidewalks. Ample parking will be given greater consideration as well as access to the store.

"Customer comfort from the standpoint of conditioned air, good lighting, clean refreshing restrooms, lounge areas, etc., will be given attention because they tend to keep the customer in the store longer and away from competition."

Kurt Versen, lighting consultant, Kurver Engineering Co., Englewood, N. J., another store-front clinic speaker, said lighting has become the greatest single contributing factor to successful merchandising.

"Unfortunately," he observed, "the lighting industry is still in its infancy. The pseudo-science of lighting has had a greater retarding effect upon more spontaneous application of lighting for merchandising than the layman is aware.

"With twenty or more million annual advertising dollars, fluorescent lighting has been sold as a panacea for everything and fictitious definitions have become part of the nomenclature of lighting. People now talk about a 40-watt fluorescent lamp because the lighting industry says it is a 40-watt lamp. In reality, it is a 52-watt lamp and consequently, the lumen ratio per watt, by which we

(Concluded on next page)

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## Speakers at Store Modernization Clinics Advocate Wise Use of Fluorescent Lights

(Concluded from preceding page)

judge the efficiency of a light source, is considerably lower than advertised.

"The relatively high initial cost for fluorescent equipment has made the merchandiser very critical of his capital expenditures, as the lighting fixture industry at large does not rationalize the relation between sales effort and sales results.

"Before the advent of the fluorescent lamp, lighting standards of incandescent lighting had been raised to a highly developed degree for the benefit of comfortable seeing. National statistics show that fluorescent fixture manufacturers are still selling fluorescent lighting in its lowest and most uncontrolled way—bare lamp fixtures, which do nothing but serve as a housing for the ballast and a holder for the lamps.

"The result is a disharmonious interior, glaring and dazzling, which cannot help but draw the shopper's attention to the lighting, instead of attracting him to the merchandise. The color spectrum of the fluorescent lamp, before the arrival of the new 3,000° Kelvin fluorescent lamp, has been the cause of many merchandise returns from disappointed housewives and, to a still greater degree, has been the cause of lost sales because of color distortion.

"Cold cathode lighting has been talked down because of its amazing life performance of 10,000 hours, a thorn in the side of the high-pressure boys who want to sell short-lived lamps.

"A detached analysis of cold cathode vs. hot cathode fluorescent lighting for any large application of store

lighting shows amazing economies and the spectral quantities of cold cathode, such as the warm white, Fluorescent Lighting Association standard with 2,700° Kelvin, are the nearest to the incandescent spectrum at an efficiency which very much rivals the hot cathode lamp output."

Versen told the clinic that the store facade is no longer a detached issue from the store interior.

"The entire facade becomes the entrance and showpiece of the store," he said. "In many instances, arcades and show windows literally merge into the store interior, only intercepted by glass panelling to insulate the store interior against atmospheric conditions. . . .

"The lighting of the facade and store interior has become, therefore, an integral function. It must have all the inherent flexibility of a stage to permit adaptability for any type of merchandise and for the highlighting of special sales items, or other considerations.

"Mrs. Customer will use, year in and year out, the same entrance to the store, pass through the same aisles to get to the department for which she has set out to complete her purchase. She is not even aware of the displays in their familiar places and, if for no other reason but this one, shopping habits must be broken.

"With a flexible lighting system, departments can be rearranged with a minimum amount of effort and Mrs. Customer will see many of the items that represent 53% of impulse buying—a tremendous boost to any store's sales volume."

new method of controlling light—the "Louverall" ceiling.

"The louverall ceiling, because of the possibilities of light control with its dramatic effects and practical versatility, has become increasingly more accepted in the lighting field. Because of this acceptance it is well to know some of the background of louverall lighting.

"A louver, as defined in the illumination field, simply refers to a device which consists of a single or a series of vanes arranged in geometric patterns, all engaged in the function of shielding a light source. 'Louverall' is a coined word meaning, of course, louvers completely covering an area. . . .

"Some time ago a survey of louver ceiling systems indicated that a need existed for a louver ceiling that could be put up in multiples of standard sections by an average electrician and mechanic.

### Results of Survey

"The survey showed that louvers should have the following properties: lightness of weight, will not warp or shrink from moisture, translucent, permanent finish, render color faithfully, easy to clean, readily fabricated, and economically practical. However, to find a material that would meet the desired material specifications seemed impossible until the lighting engineer turned to the plastic industry.

"The general term 'plastic' covers many different materials. Each one of these materials can do a good job when used in the proper place, but when misplaced can be a source of trouble. This misapplication of plastics in the lighting industry is the reason that our industry has had

considerable bad experience with plastics. . . .

"After several years of research and development work we chose a material that was believed to be the most satisfactory for louver ceilings. This member of the plastic family bears the impressive name of 'Vinyl Chloride Acetate' resin. This material is made by the Bakelite division of the Union Carbide & Chemical Co., and had the following characteristics necessary for louver lighting:

"Material transmits 71% of the light that strikes its surface. This ability of the material to permit 71% of the light to go through the vanes is what gives the entire ceiling the appearance of life and beauty.

"This material also reflects only 19% of the light that strikes the surface. This is why the ceiling is soft and restful to the eye. Comparatively little direct reflection of the light is seen on the ceiling.

"The material will not shrink or warp from moisture. The material is almost perfect in its rendition of color. In other words, if red, gold, blue, or the common fluorescent lamps are placed above the translucent ceiling, the same color as the light source will wash through the ceiling. This, as you know, is very important in decorative store lighting. Material is easy to clean, and if used properly will be resistant to dust gathered by static charge.

"The material, because of its optical characteristics, gave the glowing appearance that could not be obtained with any opaque material, such as steel or aluminum."

Frederic H. Rahr, president of Rahr Color Clinic, New York City, said a color revolution has been incited by the women of the nation

during the past decade. He reported that his firm's system of surveying color appetites had uncovered these facts:

"In a recent survey, less than 14% of 115,000 women interviewed wanted home furnishings items in white. This figure is despite the fact that several of the items surveyed are being produced almost solely in white, such as refrigerators, kitchen stoves and sinks, bed sheets, and bath fixtures.

"These women want color, like color, and will buy because of right color. The trend, which has been set by these color-conscious women is toward brighter, stronger, clearer colors. Such colors present some problems and limitless opportunities to store management.

### Customers Won't Return

"Two-timing lighting systems—those which show merchandise one color in the store and another in the home or on the street—are costly liabilities. Under such a system, goods will come back, customers won't! New fluorescents must be handled wisely. . . .

"An anaemic color scheme in a modern store is as old-fashioned as the wire basket which once clanged around the store on a trolley carrying cash and slips. Stores which are predominantly white, buff, cream, tan, or any other milk-toast color are not keeping up with the color tastes of the public. . . .

"We have found that color is the first consideration of the consumer, then come style, quality, and price. This new interest in color can be the springboard for increased sales, smarter merchandising, dramatic displays and promotions, and better informed personnel. . . ."

## On Store Lighting and Color

In one of the talks on store lighting and color, Carroll L. O'Shea, lighting engineer, Lamp Department, General Electric Co., explained that the three necessary functions of a lighting system—attraction, appraisal, and atmosphere—are commonly referred to as the three A's of store lighting.

"Now some of you may feel that to apply the three A's to your store will be too expensive," the speaker said. "Yes it will be if you are still of the opinion that lighting is an overhead expense. No, it won't be too expensive if you classify your lighting as it should be, that is, a sales investment.

"There are many ways of accomplishing a successful lighting installation. The system can be either a direct lighting system, a semi-direct system, a semi-indirect system, or totally indirect system.

"Or, it can be a combination of two or more of these systems. Incandescent or fluorescent lamps can be used as the light source, or a combination of fluorescent and incandescent can and has been very successfully employed.

### Each Has Its Use

"When I refer to fluorescent lamps notice that I do not qualify them as to cathode construction. The lamps themselves do not care about their cathodes. Both hot and cold cathode lamps have their uses. Where one will work successfully and economically the other won't or vice versa.

"Remember the thing you are buying in a lighting installation is the light delivered to the sales or display areas. The fixtures, lamps, wiring, and wattage used are only the means to the end—which is the light of the proper quantity and quality.

"By quantity I mean enough foot-candles for the shopper to really see and see well what he is buying. By quality I mean light of the proper diffusion and direction so as not to distract from the goods being offered.

"How many of you have walked into a store and the first thing you see is a quantity of glaring light bulbs. This condition may be all right if you are selling light bulbs, then they should be the first thing seen, but, if you are not selling bulbs, shield them so your prospective customers entering the store see only the merchandise you are offering.

"This principle holds true for all types of light bulbs including fluorescent lamps except in a few rare cases such as stores with high ceil-

ings or some special architectural treatment, etc.

"In selecting your light source a great amount of care should be exercised. One of the first things to determine is what effect you wish to create or what merchandise is being sold or displayed under your lighting system.

"For instance, many jewelry stores have installed fluorescent lighting as their only means of illumination with disastrous results on the cash register. Diamonds or cut stones do not show up their true value under fluorescence alone. The point source of incandescence is necessary to pick up their sparkle and snap."

Lois Munn, vice president and director of publicity, James McCreery & Co., New York City, noted that the proper use of light and color is based on recognizable principles. The basic principle of color harmony, she said, involves:

"(a) Hue, or that attribute of color by which we distinguish one color from another as: American Beauty or a deep blue red differs from tangerine or a medium orange red or from black, blue green or what have you.

"(b) Value, that attribute of color by which it varies from a deep hue to a light one directly as the white content varies or in the case of the prism light content varies."

### The 'Louverall' Ceiling

During a third talk on lighting and color, E. H. Church, of Benjamin Electric Mfg. Co., Des Plaines, Ill., looked at the subject of the "Louverall" ceiling.

"The incandescent lamp," he said, "was shortly followed by the electric discharge lamps, which extended the light source from fractions of an inch to many feet. With this new lamp, and with its comparatively low brightness, attempts are made to duplicate nature's ceiling of light by arranging lamps in continuous rows.

"This method of lighting provides much higher levels of illumination than obtainable in the past. The row and grid arrangement is still incomparable to nature's ceiling of light in that although the light sources have been greatly extended and long rows of light are now possible, each row is still a separate light source with relatively dark areas between them, and spreading the light in such a manner that would provide a ceiling of light and shielding the light source from the eye.

"In an effort to meet this challenge the illuminating engineer developed a

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**literally and figuratively!**

The very healthy business growth reported by Worthington distributors from coast to coast is explained largely by the fact that the Worthington line has everything to sell—all the important components for any air conditioning or refrigeration systems . . . and everything to sell with—out-standing sales points, backed by excellent

service, substantial national advertising.

Scores of distributors have told us ours is "the best franchise in the business." Find out for yourself why there's more worth in Worthington by writing Worthington Pump and Machinery Corporation, Air Conditioning and Refrigeration Division, Harrison, N. J.

**WORTHINGTON**  
A BALANCED LINE . . . A BALANCED FRANCHISE

A complete line of packaged Air Conditioners—3 to 15 tons

A complete line of Freon "12" Refrigerating Machines—2 to 125 tons

A complete line of Air Units, Evaporative Condensers, Unit Heaters, Wet and Dry Product Coolers for both Freon "12" and Ammonia. Also water coolers, valves, fittings and pumps.

A complete line of Ammonia Compressors—from 1 to 100 tons; also Ammonia Boosters



## Firm Trains over 150 To Handle Truck Units

MINNEAPOLIS—U. S. Thermo Control Co. has trained more than 150 operators of truck refrigeration equipment manufactured by the firm since the inauguration of a special two-week training course conducted periodically for more than a year.

The training course is designed to acquaint independent service people, franchise dealerships, and individual customers of Thermo-King truck refrigerators with the maintenance operation and service requirements.

Content of the two-week training course includes theory, demonstrations, a full day at the engine plant to witness operations of mechanics, trouble shooting methods and complete instruction on tearing-down and rebuilding operations.

Usually only about four to six trainees participate in the school having been sent by dealers or customers to learn the maintenance of the refrigerators. At present instruction is being given four mechanics sent by Thermo-King purchasers in Memphis, Tenn., Rochester, N. Y., Evansville, Ind., and Chicago, Ill.

## Low Frigid-Flow Bid Gets Job

UTICA, N. Y.—The low bid of \$4,969 on construction of a walk-in refrigerator for Building C at Marcy State Hospital was submitted by the Frigid-Flow Co. of Rome, N. Y. Two higher bids were filed. H. Carl Mason, business officer, said the cooler will be part of a new kitchen.

## Open Display Case, Located Near Door, Serves as Reminder For Drugstore Patrons To Purchase Ice Cream on the Way Out



The glass sides of this Hussmann open self-serve case give the youngsters a chance to see ice cream and other goods on display.

OMAHA, Neb.—The first self-serve display case for vending ice cream and frozen fruit toppings to be installed in an Omaha drugstore, the "most modern" air conditioning system and the "most attractive" soda fountain boasted by any Omaha pharmacy, have played a very important part in bringing in business beyond the fondest expectations of the management at the new Beaton Drug Store No. 5, here, according to Manager Glenn R. Branson.

At the three-day formal opening, over 5,000 persons per day visited the store, and business has been increasing steadily ever since, he declared.

Commanding the attention of cus-

tomers at the new store is the 10-ft. white Hussmann display case located next to the front entrance. This case is located near the doorway rather than adjacent to the fountain department because it serves more efficiently as a reminder to "take home some ice cream" to all customers regardless of the department they have patronized, it was pointed out by Bill Couch, front-end manager.

The case and its location are paying handsome dividends, he continued, and if a patron accompanied by children is so preoccupied as to walk by the case without stopping, the kiddies invariably will bring the display to the adult's attention.

The case is easily seen from the street because of the visual all-glass front which extends from the floor to the ceiling. Window displays have been dispensed with, so that the entire interior is visible from the street, and display fixtures are kept at waist-height to better facilitate vision.

Interior lighting has been planned so that it is just as light at night as in the daytime, and this further enhances the display created by the refrigerated case. A series of four rows of alternating fluorescent and incandescent lighting fixtures is recessed in the sound-resistant ceiling, while the front door is a glass panel flanked on each side by a matching glass panel.

### Tie-In Items on Top of Case

Top of the open case serves as a display shelf for boxed cones and canned sundae toppings, such as chocolate, to boost related sales. Illustrated placards carry such wording as "Um-m-m Delicious! A Home Made Sundae . . . Fairmont Ice Cream Topped With Fairmont Fresh Frozen Fruit! Take Home a Package of Fruit With Your Ice Cream," and "Fairmont Ice Cream For Pep! . . ." Prices and flavors also are listed on the backbar of the case.

The new case not only has the customary slanting, mirrored backbar to facilitate display and shopping ease, Couch pointed out, but also has a glass encased side part way down for added visibility.

The glass side serves as a magnet to draw the "small fry" trade, and enables the youngsters to see "what's

what," whereas with the conventional display cabinet the smaller tots wouldn't be able to see over the top. This modern feature makes for lots of additional sales, Couch averred.

The prescription department, which is visible from any position on the floor and from the street, despite the fact it is at the back of the store, is equipped with a refrigerator for storage of biologicals and serums.

Fountain department is at the back of the store adjoining the prescription department, but is segregated from the rest of the store by a waist-high blonde ash fixture extending part way along the center series of mirrored floor columns. The 24-ft. fountain has a mirrored backbar and all the newest mechanical aids including four refrigerator compartments each with a separate refrigerating system and compressor.

In modernistic design and decorated in red and cream to match the rest of the store's fixtures, the slanting front of the fountain has a ledge for a foot-rest, and a shelf just below the bar top for patrons to deposit packages, leaving them free to enjoy their fountain dishes and drinks. The 12 cream-upholstered stools are trimmed in red, and the metal pedestals also have red trims. Four

booths directly across from the fountain seat six persons each. Backs are cream-upholstered and cushions are red.

The store has year-round air conditioning, with an oversize Westinghouse system using "Freon." The 10-hp. compressor can handle the cooling job without being pushed even on hottest days, according to the management. All refrigeration and heating power units are located conveniently in the full-size basement, and the same ducts and vents, all of which are built-in so as not to mar the beauty of the store interior, are used for summer cooling and winter heating.

### One Unit Per Compartment

An ultra-modern feature of the basement mechanical installation is the use of independent refrigeration units for each of the four cold storage compartments in the soda fountain directly above. Thus if one unit goes out of operation, fountain business can be carried on as usual and no damage done to perishables while the defective unit is repaired or serviced.

Separate switches regulating the steam table and electric coffee maker are located in a compact bank along with the refrigeration unit switches on a plainly marked panel. This grouping of all controls makes for added efficiency, the management pointed out.

Refrigeration coils in all storage units are automatically defrosted each day at 2 a.m.

Super-deluxe is the auxiliary "air screen" system which serves the front entrance. A ceiling vent the width of the entranceway directs a screen of forced air down to guard against entrance of insects in the summer and keep out blowing snow in winter, when the door is opened. A switch is located under a counter easily accessible to clerks when it can be turned on or off at the discretion of the personnel.

A large fan installed in the duct of the air conditioning system above the doorway motivates the air screen. It blows cool in the summer and warm in the winter. If desired, the door can be kept open as an invitation to traffic, with the air screen keeping warm air out in the hot months, and cold outside air out in the winter.



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## The Heat Is Off

100,000 Room Cooler Sales Predicted  
This Year with Total Doubled In '49

NEW YORK CITY—Taking a look at the room air conditioner business in the lead article of a recent issue, *Tide* magazine said the best guess on production in 1949 and 1950 is "some 200,000 units a year."

*Tide* is a weekly newsmagazine devoted to advertising, marketing, and public relations.

The article was presented under the headline, "Room Air Conditioners—How a promising new product has come to life again and is advertising and selling its way into a much more important place in the electrical appliance field."

*Tide's* report discussed output, long-range potential, and distribution methods of the industry and current activities and plans of these individual manufacturers: Carrier, Chrysler Airtemp, Fedders-Quigan, General Electric, Frigidaire, Mitchell, Philco, U. S. Air Conditioning Corp., and York.

Manufacturers produced about 10,000 units in 1938 and twice as many in 1939, and then war halted the industry's progress, the magazine told its readers.

## Resumed with Vigor

"Now it has resumed with vigor," the article said, "and many more are believed in the market for them than ever. As a result, the postwar output increased steadily, and last year, the industry turned out a record 42,000 units, with a manufacturers' value of nearly \$10,000,000. This year its volume will run at about 100,000 units valued at \$25,000,000."

(A chart on the cover of the issue carrying the article showed that production totaled 1,126 units valued at \$326,395 in 1945 and 29,835 units valued at \$5,869,492 in 1946.)

Explaining distribution methods, the report pointed out that room coolers, unlike most appliances, "present engineering and installation problems which have made it difficult to market them through appliance or department stores."

"Consequently, most companies have set up franchised distributors and dealers for certain exclusive territories (an exception is the Mitchell Mfg. Co., which has distributed through department stores)."

"Carrier, York, and Chrysler each has distributors handling its air conditioning lines exclusively; their dealers who operate under them often as not handle other heating, refrigeration, and specialty appliances and sometimes even other air conditioners."

"Philco uses its regular distributors who handle its other lines as well. The same applies to Frigidaire whose distributor-dealer network also handles its beer coolers and electric refrigerating machine."

## What They're Doing Now

*Tide* reported on the status of individual manufacturers in part as follows:

Carrier: "... brought out its first room conditioner in 1932. Today it has four types on the market: two window models, the Master and the Executive at \$398 and \$495, and two

consoles, the Deluxe and the Director at \$629 and \$880 (delivered, installed, and serviced for one year)....

(A footnote explained that all prices vary with locality.)

Chrysler Airtemp: "... brought out its first packaged air conditioners (three and five-ton jobs) in 1935, but did not introduce a line of window and console units until 1938.

"Its production was relatively high before the war but it has made several structural changes in its models since then and expects to produce only 5,000 units this year. In March it brought out two models, console and window (for either double-hung or casement windows) which, with an entire light-weight aluminum construction, runs about \$600 installed...."

## Hundreds Become Thousands

Fedders-Quigan: "... has a window-type room conditioner in half and three quarter ton sizes at \$379 and \$479, says it will soon make a console model. Last year the company brought out only several hundred for test purposes, but is now making 'thousands of units.'..."

Frigidaire: "... did not begin marketing its single room conditioners extensively until about 1940. The company now has a half-ton window model at about \$400, expects to have a new one-ton job available at the end of this month (July)...."

Philco: "... introduced the old Philco-York room conditioners in 1938. Today, although York still makes all of them, Philco designs the models and uses its own name on them.

"The company claims that it out-sold all the other room coolers combined before the war, but brought out only a small postwar line in 1946. Now it says that its 1948 production is many times greater than the biggest year before the war and three times last year's output. Philco has four models, both window and console, which run from about \$459 to \$659...."

## York Claims Half

York: "... says it brought out the 'first successful single room air conditioner in the U. S. in 1935.' By 1946 the company says it had produced about half of all U. S. room coolers.

"This year, however, is the first postwar one when the company 'has really gone to town on packaged products.' York has both window and console models with hermetically sealed compressors. They retail from \$487...."

Mitchell: "... brought out its units immediately after the war. The company, best known as an industrial lamp manufacturer, now markets two room air coolers: a half-ton model at \$375 and a three quarter-ton model at \$450...."

United States Air Conditioning: "... developed its first portable room unit in the thirties and turned out a few models before the war. It did not go into production heavily, however, until 1946 and this year will make 1,500 each of three different

models. These are half-ton, air-cooled units at \$384 and three-quarter and one-ton water-cooled console units at \$585 and \$675 respectively...."

General Electric: "... made window and console room units before the war. In 1947 the company re-introduced a console unit, took it off the market this year, because 'manufacturing costs were too high to warrant production.' G-E originally designed the room coolers for homes, says that the professional market hasn't panned out...."

*Tide's* article was illustrated with reproductions of advertisements run by Carrier, York, Frigidaire, and Philco.

Proposed Cabin Project  
To Use 1,000 Room Units

LINCOLN, Neb. — The Linoma Power Co. of Lincoln has taken out a \$100,000 Nebraska charter to engage in production of electrical and atomic energy, and to construct 1,000 summer cabins, each to be equipped with a packaged air conditioning unit.

Incorporators are Louis F. Armbrust, Gretna, Neb.; George Vogel, South Bend, Neb.; and George W. Kline, Lincoln.

To Help You Sell More—

**Curtis** AIR CONDITIONERS  
Are Advertised in the  
"SATURDAY EVENING POST"  
"TIME"  
AND OTHER LEADING MAGAZINES

You have seen Curtis Air Conditioners featured in full pages in color in the Saturday Evening Post and Time presenting the advantages of Curtis "Comfort Zone" Air Conditioning to more than 5,500,000 readers.

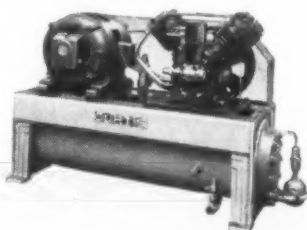
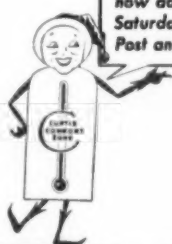
Here's your opportunity to reap the benefit of the great selling and merchandising power of these outstanding publications—reaching your major markets.

Sound design and engineering have proven Curtis units to be ideal for stores, offices, taverns, drug stores, apparel shops, beauty parlors, restaurants and many others.

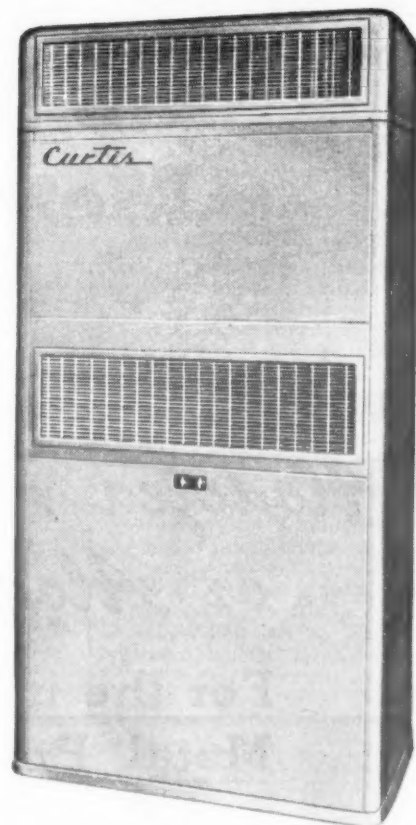
It will pay you to get set to sell this vast and rapidly growing market now.

Write to Curtis for full information on how you can tie in with Curtis' new national advertising plans and assure more air conditioning sales and profits for 1948.

It's big news for dealers—Curtis now advertises in Saturday Evening Post and Time.



Curtis Condensing Units for Commercial Refrigeration—1/4 to 30 H. P., air and water cooled.



Curtis Air Conditioning Units 3, 5, 7 1/2, 10 and 15 Tons.

**Curtis**

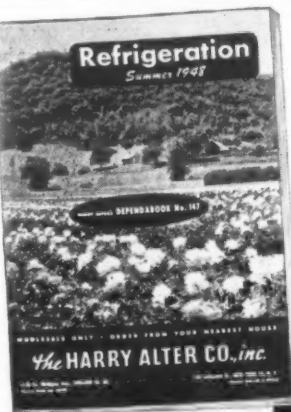
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AB-597



## Store Expansion Program Includes Conditioning

CHARLOTTE, N. C. — Announcement is made by J. B. Ivey & Co., one of Charlotte's larger merchantile establishments, of the completion of plans for beginning immediately an improvement and expansion program costing \$1,000,000.

"In order to provide utmost comfort for our customers and employees," a company spokesman said, "we have decided to go forward immediately with the plans we made last year for thoroughly equipping our five-story building with air conditioning facilities. The air conditioning will be ready for the next season."

Numerous other improvements are planned by the store management.

## 'Therapeutic' Air Conditioning System In Hospital Features Individual Room Controls

PEORIA, Ill.—One of the nation's most unique "therapeutic" air conditioning systems has just been completed at the St. Francis hospital here—designed both for additional comfort for patients, and to do away with odors, perspiration, dust, and soot.

The huge system, powered by a Carrier reciprocating condensing unit, provides cool 80° temperatures with 50% or less relative humidity for operating rooms, medical laboratories, a children's ward, roof solariums, conference room, as well as all rooms for individual patients.

Air conditioning is provided for an entire 8-story wing completed a few years ago, and amounts to more than 8,000 c.f.m. circulation.

Instead of using the usual "central system" with ducts distributing cooled air from a fan station in the basement, hospital engineers and the Carrier Corp. together designed a system whereby each room has its own individual "air conditioning plant." This was felt necessary in order to eliminate odors passing from one room to another, noise, dust, and soot, which were keeping the hospital laundry bill high.

In place of the circulating system, each of the many air conditioned rooms are provided with a small "package unit," supplied by chilled water from a basement chill tank. Each of the units resembles the ordinary commercially sold type of package unit, with the difference that it contains only a circulating fan and coil, all water supplied from the lower level.

Each unit likewise has a dial, marked "warmer or cooler" and can be controlled by merely turning a pointer. Incidentally, the same water will be heated during the winter months, to provide the same comfortable temperature no matter what the outside degree may be.

In order to eliminate dust entirely from the system, for the benefit of patients affected with respiratory diseases, etc., everyone of the metal cabinets which cool the various rooms is fitted with a sponge-rubber gadget which firmly seals in the space between the cabinet and the wall. In this way, it functions as a hermetically sealed box.

While basically the purpose of the unit is to circulate the air in the room which it serves, it was determined that a certain percentage of fresh outside air for ventilation had to be admitted at all times. Therefore, in addition to recirculation, approximately 20% of the air admitted to the room is supplied by a ventilating system, hooked into the air conditioning units.

A small duct supplies the 20% outside air, which in turn is picked up at the back of the building and sent through by means of an 8,000 c.f.m., high-pressure blower. The outside air, as it is admitted to operating rooms, patients' rooms, etc., passes over the cooling coil, as does the recirculated air, and both quantities of air are cooled simultaneously.

Temperature control is obtained by shifting the water quantity from the basement refrigeration unit through the cooling coil of each unit. Each of the Carrier package units is equipped with a packless, by-pass type manual-control valve, which the occupant may dial to give the desired temperature. To switch over to heating during the winter months, it is necessary to reverse the direction of rotation of the valve, when changing from one cycle to the other.



## Cooling Load (Cont.)

### DUCT HEAT GAIN

In many installations the coil casing, or ductwork, is located outside of the air conditioned space. When such is the case, the cold air passing through this equipment will pick up heat. Therefore, it is necessary to allow a proportioned amount of heat gain for this rise in temperature.

This amount of heat is generally assumed and not figured. For good practice allow 5% of the internal sensible heat gain.

If the coil casing, or ductwork, is to be installed in the air conditioned space, this heat gain does not have to be used.

**Example:** Assume that the internal sensible heat gain of an air conditioned space is 200,000 B.t.u./hr., and the coil casing with fan and motor and ductwork is to be installed outside of the air conditioned space. What is the duct heat gain?

$200,000 \text{ B.t.u./hr.} \times 5\% = 10,000 \text{ B.t.u./hr.}$

### VENTILATION HEAT GAIN

Air introduced for ventilation is taken from the outside of the air conditioned space. This also may be known as outside air heat gain.

This air has to be figured for both sensible and latent heat.

Figure amount of ventilation as shown in the section on ventilation.

**Example:** Assume the ventilation load as 1,000 c.f.m. The outside design conditions are 95° F. dry bulb and 75° wet bulb temperatures, and the inside design conditions are 80° F. dry bulb temperature and 50% relative humidity. What is the sensible and latent heat gains?

### SENSIBLE HEAT

$1,000 \text{ c.f.m.} \times 60 \times .24 \times .075 \text{ (O.D.B.T. } 95^\circ \text{ F. — I.D.B.T. } 80^\circ \text{ F.)} = \text{B.t.u./hr.}$

Where:

60 = minutes in one hour.

.24 = specific heat of air.

.075 = weight of 1 cu. ft. of air.

The above formula can be shortened to:

$1,000 \text{ c.f.m.} \times 1.08 \text{ v (} 95^\circ \text{ F. — } 80^\circ \text{ F.)} = \text{B.t.u./hr.}$

$1,000 \text{ c.f.m.} \times 1.08 \times 15^\circ \text{ F.} = \text{B.t.u./hr., or}$

$= 16,200 \text{ B.t.u./hr. sensible heat.}$

### LATENT HEAT

From the psychrometric chart the dewpoint of 95° d.b. and 75° w.b. air is 66°, and has 7.1 grains of moisture per cu. ft.

The dewpoint of 80° d.b. and 50% r.h. is 60°, and has 5.8 grains of moisture per cu. ft.

Therefore  $7.1 - 5.8 = 1.3$  grains to be removed from each cubic foot.

Then:  
 $1,000 \text{ c.f.m.} \times 60 \times 1.3 \times 1,080$

$= 7,000$

$12,034 \text{ B.t.u./hr.}$

Where:

60 = minutes in one hour.

1.3 = grains to be removed per cu. ft.

1,080 = B.t.u. required to evaporate one pound of water.

7,000 = grains in one pound of water.

The latent heat in this case is 12,034 B.t.u./hr.

(To Be Continued)

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Send for our free Comparison Chart!

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442 ILLINOIS • DETROIT 1, MICH.

The Ansul Research Staff  
REPORTS ON:

## SLUDGES

Approximately 90% of the sludges produced in refrigerating systems are due to moisture. The exact cause can always be determined by analysis, but the appearance of the sludge (see photos) is usually indicative of the cause.

### SLUDGE DERIVED FROM MOISTURE —

If water is present in a machine, the nature of the sludge depends upon the type of refrigerant and length of time the water is present. All refrigerants . . . sulfur dioxide, methyl chloride, Carrene and "Freon-12" . . . react with water to produce corrosion products characteristic of each. To prevent sludge, the amount of water present in a refrigerating system must be small enough to avoid ice separation and corrosion. For "Freon-12" and methyl chloride, a quantity of water approximately .05% by weight will cause corrosion; the limit is somewhat higher for sulfur dioxide.

### SLUDGE DERIVED FROM OILS —

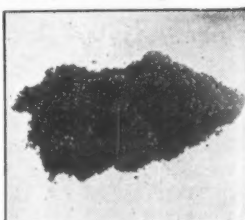
Oil sludges are characterized by total or partial solubility in carbon tetrachloride, gasoline and similar solvents. It is generally presumed that oil sludges are due to two causes: (1) an interaction between the unsaturated constituents of the oil and the refrigerant; (2) a breakdown of the oil due to heat, oxidation, friction, etc.

ANSUL WHOLESALERS are ready and equipped to render an intelligent, co-operative service to refrigeration engineers and maintenance men on problems which arise from time-to-time in the operation of refrigerating systems.

### FOR EXAMPLE:

The Ansul Research staff has developed a method for analysis of sludges. This analysis usually gives the answer as to the origin of the sludge. If you have a sludge problem, send a sample of the sludge with pertinent information to the Ansul Research Laboratory through your Ansul wholesaler. An analysis report will be made for you without charge.

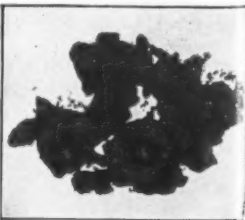
Ansul Refrigerants are available at leading wholesalers everywhere.



GRANULAR SLUDGE  
... due to moisture



FLUID SLUDGE  
... due to oil



HARD SLUDGE  
... due to moisture and oil



REG. U. S. PAT. OFF.

**ANSUL CHEMICAL COMPANY**  
REFRIGERATION DIVISION, MARINETTE, WISCONSIN

DISTRIBUTORS FOR KINETIC'S "FREON-11," "FREON-12," "FREON-21," "FREON-22," "FREON-113" AND "FREON-114"



## Methods of Rating Insulation Effect of Clothing Evaluated at ASHVE Meeting

BRETTON WOODS, N. H.—How much insulation is provided by clothing, and a comparison of two methods used to test the insulation values were outlined in a paper of Prof. C. P. Yaglou of the Harvard School of Public Health presented before the semi-annual meeting of the American Society of Heating & Ventilating Engineers here.

"Although the insulation value of samples of fabrics composing a garment can be measured readily by the hot plate or the cylinder method, such simple measurements are of no great value in predicting the warmth of the garment to the wearer," stated Yaglou's paper, which was read by Cyril Tasker, ASHVE director of research.

"The style, looseness of fit, porosity, compression, moisture retention, and stiffness of fabric resulting in bellows action can modify considerably the effectiveness of fabric insulation."

Because of this, tests must be on persons actually wearing the clothes, asserted Yaglou, who further declared that the "temperature-gradient" method of testing is to be preferred over the "heat-loss" method.

In the latter the over-all heat loss is calculated, but with the temperature-gradient method, gradients are measured at a minimum of 15 areas by means of thermocouples sewed onto the innermost surfaces of the underclothing next to the skin and on the corresponding areas on the inside and outside of the outermost garments.

"The most serious limitation of the heat-loss method is that it deals only with over-all insulation of whole assemblies and cannot be applied to evaluating insulation on body areas that are particularly sensitive to cold, such as the shoulders, back, elbows, knees, hands, and feet," Yaglou said.

The temperature-gradient method "provides information for studying the cause of failure at break-down points of garments from a consideration of local skin temperature and insulation value, possible air leakage, compression pressure, and sensations of warmth."

"Although results so far obtained by the gradient method appear

promising, there is not enough experience to judge its possibilities and limitations at this time," Yaglou cautioned.

Some data which has been developed by this method was cited in Yaglou's paper, such as the following which shows the mean temperature (in °F.) for a wool-pile military uniform at several body points:

	Skin Underwear	Inside Pile Surface	Outside Pile Surface
Chest .....	86.4	44.2	17.1
Low back .....	87.3	37.9	18.1
Elbow, bent .....	69.2	49.7	18.8
Seat .....	77.4	69.4	59.6
Jacket and trousers ..	80.5	52.7	16.9

## Singapore Bank To Have First Conduit Cooling Installed In Orient

SYRACUSE, N. Y.—Carrier Corp. has announced signing of a contract to air condition the new eight-story building of the Hong Kong & Shanghai Banking Corp., now being constructed on Orchard Rd., Singapore.

A Carrier Conduit Weathermaster system will be installed, the first conduit air conditioning installation outside the Western Hemisphere, the company stated. The conduit system eliminates return ducts, and replaces the large rectangular supply ducts with small diameter conduits, requiring 75% less space. The conduit system also permits individual control of the temperature and humidity in each room.

Equipment providing 170 tons of refrigeration capacity will be used, including four reciprocating compressors.

The 55,200 sq. ft. of air conditioned area in the building will be served by 159 Conduit Weathermaster units.

The upper floors of the building will be devoted to apartments for the bank's officials.

Talmer & Turner, of Singapore, are the architects and consulting engineers of the new building. The air conditioning installation is being handled by Carrier International, Ltd., Singapore, of which Winston B. Braxton is manager.

## Booklet Promoting 'Indoor Comfort' Finds Wide Uses by Air Conditioning, Heating Dealers

CLEVELAND — The consumer booklet, "Seven Steps to Indoor Comfort," published by the National Warm Air Heating and Air Conditioning Association, is being put to use by a great many dealers throughout the nation as a warm air heating sales promotion tool.

Writes one dealer: "We feel that this booklet is the best advertisement that we could obtain to acquaint the general public with the benefits to be derived from the proper installation of a winter air conditioning system." Another dealer has found the copy contents of the booklet to be good script material for a series of radio spot announcements he sponsors on a local radio station.

Many dealers are using the "Seven Steps" booklet as inquiry stimulants in special direct mail promotions conducted in their local areas. One such letter reads: "Are you, too, planning some new conveniences and home improvements? For instance, Year-Round Indoor Comfort through perfect control of the heated or cooled air in your home, regulated to the exact 'Comfort Point?' Here we can be helpful. First, we will be glad to send you the beautifully colored, illustrated booklet, 'Seven Steps to Indoor Comfort,' published by the National Warm Air Heating and Air Conditioning Association. It will familiarize you with the unlimited possibilities of air conditioning toward cleaner, purer, dust-free heating in the modern home. There's no obligation. Just mail us the enclosed request card today."

A feature of the booklet is its complete adaptability to the sales promotion program of any organization within the industry. No mention of any particular products or equipment is made anywhere within its pages. It sells one idea and one idea alone . . . the desirability of adequately planning and providing for the enjoyment of year-round Indoor Comfort when building or remodeling a home. Hence, it can be appropriately used as a supplementary piece with any warm air heating manufacturer's line of product literature.

Profusely illustrated in four colors throughout its 16 pages, the "Seven Steps" booklet advises that the seven conditions of air quality which make for true Indoor Comfort are: air at a satisfactory temperature, air containing the proper amount of water vapor; air moving constantly but imperceptibly; air free of dust, dirt, smoke, and pollen; air free of staleness; air free of germs and bacteria; and air of adequate density.

To achieve these conditions, the prospective home builder is counseled to talk it over with his local warm air heating contractor or dealer. The entire back cover of the booklet has been purposely left blank for convenient imprinting of the manufacturer's or dealer's sales message.

These booklets are available at the price of 10 cents each in quantities up to 100, and 9 cents each in quantities over 100. They may be obtained from the National Warm Air Heating and Air Conditioning Association, 145 Public Sq., Cleveland.

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**Marlo**

products

**MARLO-HEAT TRANSFER**

Since 1925

**NIAGARA**

**AEROPASS\* CONDENSER**

... increases refrigeration plant capacity; saves power and water.

Patented features: "duo-pass" coil keeps condenser tubes free from scale; "oilout" constantly cleans oil and dirt from the refrigerant. "Balanced Wet Bulb Control" maintains minimum practical compressor head pressure.

**NIAGARA BLOWER COMPANY**

30 Years of Service in Air Engineering

405 Lexington Ave. New York 17, N. Y.

\*Trade-mark registered

**MARSH**

Pressure Gauges  
Dial Thermometers

★The gauge with the Recalibrator

Ask for this New Refrigeration Booklet

**JAS. P. MARSH CORP.**

Dept. O, Skokie, Ill.



SUMMER and SPRING

WINTER and FALL

*Sell*

**GOVERNNAIR**

**ALL YEAR 'ROUND**

Your sales don't have to "drop off" at the end of every summer season. Sell Governair *All year 'round* and keep that sales curve "up" during slack periods. Sell blast coils for converting our packaged unit to year 'round air conditioning. Sell completely packaged air conditioners to those who didn't order early enough this season. Sell unit coolers for efficient refrigeration. Yes, keep your sales average HIGH — sell Governair *All year 'round*. Clip out coupon below and mail today.

**BLAST COILS FOR YEAR 'ROUND HEATING & COOLING**

Governair blast coils for efficient heating or cooling take the lead for year 'round business! Smart operators are selling these to convert our completely packaged air conditioners for year 'round comfort. Others use them for cooling or heating in numerous other ways. Made of copper tubing and copper fins spaced according to temperatures involved. All joints are securely welded and a thorough pressure test is made before each unit's delivery. Check into your potential sales of these versatile coils *right away!* Sell Governair *all year 'round*.

**COMPLETELY PACKAGED AIR CONDITIONERS FOR YEAR 'ROUND COMFORT**

This is the famous Governair completely packaged air conditioner which has made air conditioning history! Expertly designed for efficient operation, easy installation and high quality performance this air conditioning unit is known as the **greatest VALUE IN THE FIELD!**

It can be quickly utilized for year-round air conditioning to provide clean, warm air by connecting a Governair heating coil to the system. Owners of the unit are your immediate prospects for fall and winter business. Sell them also to those "hot" prospects who didn't order early enough this year. Sell Governair *all year 'round!*

**UNIT COOLERS FOR YEAR 'ROUND REFRIGERATION**

The Governair floor type unit cooler needs no introduction! It is compactly designed for operation in cold storage rooms to produce temperatures below or above 33 degrees. The units may be furnished with either vertical or horizontal air delivery as required. Available in a wide range of sizes to provide air delivery from 1,600 to 20,000 CFM.

Particularly desirable for its efficiency and mobility, this unit was highly praised and its performance was proven in world-wide use by the Army and Navy during the war. It *always* does a capable year-round refrigeration job, so it's a "natural" sales builder for year-round business. Sell Governair *all year 'round!*

## NO MORE FREEZE-UPS WITH 'Cross-Flo' DRIER-FILTER

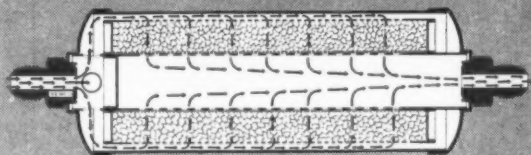
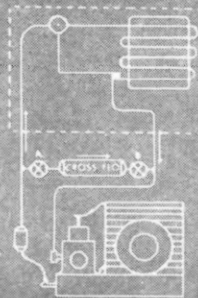
installed in the by-pass between the liquid & suction lines.

That's the enthusiastic report of M. R. Pielstick (Pielstick Refrig'n Service Buhl, Idaho) after he installed his first Cross-Flo (bought from his wholesaler N. O. Nelson Co. of Salt Lake City).



Mr. Pielstick found the answer to a problem that had been bothersome for months—using several other types of driers, he had been unable to get the moisture down to where it wouldn't freeze up. Then he installed a Cross-Flo in a lower temperature location (see diagram below) where the drying efficiency of silica gel was so greatly increased that service troubles from expansion valve freeze-ups were entirely eliminated. Now he's an enthusiastic and *exclusive* Cross-Flo user.

Diagram below shows Cross-Flo's principle of flowing the refrigerant uniformly through the outside coarse-filter then slowly across the large cylindrical bed of drying agent, finally flowing slowly through the extra-large highly-efficient filter.



**REMCO HEAVY-DUTY "Cross-Flo" DRIER-FILTERS**

— CAPACITIES —

LIQUID LINE: 1/4 to 7/8 HP  
LOWSIDE: 1/4 to 15 tons Freon-12  
SUCTION LINE: 3/8" to 1/2" O. D.

Send for Circular 771-A for 'all the facts' about temperature effect on drier performance.

Carried in stock by leading wholesalers everywhere

**REMCO**  
INCORPORATED  
ZELIENOPLE, PENNSYLVANIA

**GOVERNNAIR**

**GOVERNNAIR CORPORATION**  
513 N. BLACKWELDER • OKLAHOMA CITY, OKLA.

PIONEERS IN THE MANUFACTURE OF COMPLETELY PACKAGED AIR-CONDITIONERS

CLIP THIS COUPON AND MAIL TODAY

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GOVERNNAIR CORPORATION  
513 N. Blackwelder, Oklahoma City, Okla.

We want to keep sales high during slack periods. Without obligation, please send free literature as checked so that we may sell Governair *all year 'round!*

☐ Governair Blast Coils ☐ Governair Completely Packaged Air Conditioners

☐ Governair Unit Coolers

NAME \_\_\_\_\_ TITLE \_\_\_\_\_  
COMPANY NAME \_\_\_\_\_  
STREET ADDRESS \_\_\_\_\_  
CITY AND STATE \_\_\_\_\_



## Fisher Named Sales Head For Sperti-Faraday, Inc.

CINCINNATI — Appointment of Frederick B. Fisher as general sales manager of Sperti-Faraday, Inc. was announced by Hugh S. Williamson, president.

Fisher succeeds John J. Fitzpatrick who recently resigned as vice president and general sales manager of Sperti, Inc. to establish his own sales agency for various electrical products.

Fitzpatrick will represent Sperti-Faraday in Ohio, Indiana, Kentucky, and West Virginia with headquarters in the Provident Bank Bldg. here.

He has been associated with the electrical appliance and retail merchandising field for the last 10 years. He served as sales manager of Faraday Electric Co. at Adrian, Mich. before its recent purchase by the Sperti interests.

## New School Graduates 70

MIAMI, Fla. — Seventy students comprising the first graduating class of the Frame Refrigeration-Electrical Institute received their diplomas Aug. 6. Students were graduated as servicemen for refrigeration and air conditioning units. Of the 70 graduates, 69 were enrolled under the GI Bill of Rights.

## M-H Refrigeration Post Assigned to Wissmiller

MINNEAPOLIS — V. Dale Wissmiller has been named supervisor of national accounts and refrigeration for the commercial controls division of the Minneapolis-Honeywell Regulator Co., John E. Haines, vice president, has announced. Wissmiller has been western division manager of the transportation division, working out of the Chicago office.

V. D. Wissmiller

A native of Cookville, Ill., Wissmiller was graduated from the University of Illinois in 1930 with a degree in engineering. He was employed as a highway engineer for the Illinois State Highway Department for six years before joining Honeywell.

First assigned to the company's service and installation department in Chicago, he was made service and installation manager in St. Louis four years later. He was later transferred to the commercial controls division in Minneapolis as sales engineer until 1944.

## 'Soft Ice Cream Here To Stay,' Says Veteran Dealer



Soft ice cream is the answer to stiff competition, believes Charles Paino, veteran ice cream merchandiser in Boston who recently took on the Sweden distributorship for the New England area after having been a merchandiser of hard ice cream for the past 20 years.

## Cites Competition for Space In the Stomach

BOSTON, Mass. — After 20 years of merchandising hard ice cream, Charles Paino, former president of the National Association of Retail Ice Cream Manufacturers, has switched to soft ice cream and taken on the New England distributorship of Sweden "speed freezers." A short distance from Symphony Hall, Paino's recently opened Dixie Dairy Bar here features two 20-gal.-an-hour and one 30-gal.-an-hour Sweden freezers, which produce six different flavors at a time. The dairy bar also houses the distributorship offices.

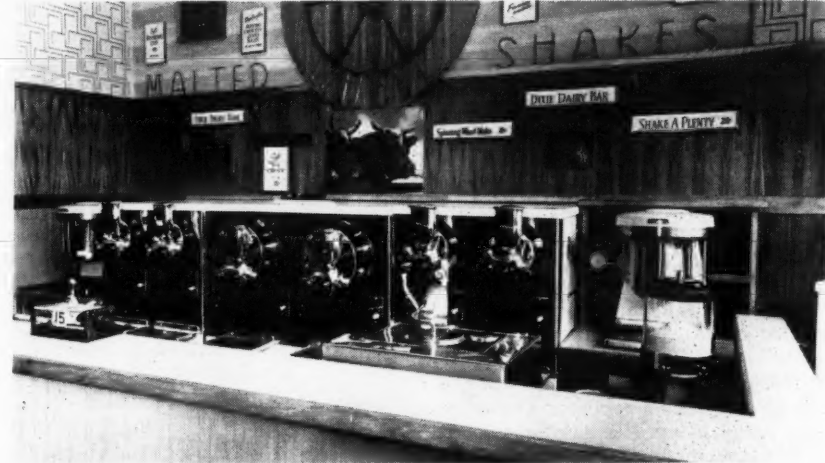
According to Paino, there is a pronounced trend toward soft ice cream. "There is plenty of evidence from coast to coast that the ice cream industry is headed in two directions: there is a trend toward packaged ice cream, and there is a strongly increasing trend for that new taste thrill of soft cream," he asserts.

"We've got to face the facts—soft ice cream is here—it is here to stay because Mr. and Mrs. Consumer will buy more of it more often. . . . For the past 20 years I have merchandised hard ice cream and in all those 20 years I have never witnessed a more spontaneous reaction of consumer preference than for soft ice cream," Paino says.

"We in the ice cream business have got to expect lots of stiff competition, not only amongst ourselves but with other food industries," he pointed out.

"They told me years ago that the human tummy has a capacity of 40 ounces, and a human being has to decide whether that capacity is to be filled with candy, cake, or steak, or ice cream, or a neatly distributed portion of all of them.

"We're all after a share of the space in that 40-ounce food pantry in the human stomach."



Paino's new dairy bar features three Sweden "speed freezers" and no stools (for quick turnover, he says).

## Remington Votes Dividend Joint Meetings Promoted As 6-Month Earnings Jump By Los Angeles Groups

CORTLAND, N. Y. — Remington Corp. declared a dividend of 10 cents per share on its common stock, payable July 30, to stockholders of record June 30.

Earnings, for the six months ended June 30, 1948, were \$1.43 per share, as against 3 cents per share, for the same period of 1947.

In his July 30 interim report to stockholders Herbert L. Laube, Remington president, said that:

"Because of the seasonal nature of our packaged air conditioning business it is not to be expected that our rate of activity for the second half of the year will be as high as for the first six months. Nevertheless, we did enter the second half of 1948 with a good backlog of orders."

## Johnson Branch Personnel Gets Schooling on Controls

MILWAUKEE — A training school for technicians and apprentice mechanics from branch offices and June graduates in mechanical engineering from various colleges is currently being conducted by Johnson Service Co., Milwaukee, manufacturer of automatic temperature controls, J. A. Cutler, president, has announced.

Under the direction of J. R. Vernon, sales promotion manager, the course, which continues through Aug. 13, is divided into three sections: automatic control apparatus, under H. W. Alyea, field and development engineer; heating and air conditioning systems, under M. M. Herrick, application engineer; and sales and contracting operations (for those in sales activities only), under J. R. Vernon.

Other lecturers include C. A. Otto, chief engineer, Milwaukee; A. J. Otto, factory superintendent, Milwaukee; R. A. Thompson, production manager, Milwaukee; O. G. Ward, vice president and district manager, Chicago; Albert Schoebel, construction superintendent, Milwaukee.

Technicians and apprentice mechanics from branches throughout the United States and Canada are attending.

LOS ANGELES — Joint meetings among five local refrigeration and air conditioning technical societies and trade associations are in prospect for the coming season here, including one general session which will include all groups.

To map out general plans, two representatives from each group met here recently, including Robert N. Gay, president of the Refrigeration Contractors Association, Inc.; Neal S. Templin, executive secretary of the contractors; Ralph M. Westcott, chairman; and George S. Wheaton, representing the American Society of Refrigerating Engineers; Richard Farr and John Blake of the American Society of Heating & Ventilating Engineers; Paul Kieffer and Harold Halls of the Refrigeration Service Engineers Society; and Regis Gubser and D. H. Byl of the National Association of Practical Refrigerating Engineers.

A considerable number of men, it is said, are active members in two or more groups, and the various groups have often programmed similar topics at their individual meetings.

The move was sponsored by the contractors' group.

## WORLD-WIDE SERVICE!

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Everything and anything in parts and supplies shipped all over the globe. Scarce items back, new lines added...most complete stock available anywhere in our enlarged modern building. Big or little, your order gets speedy personalized attention. Thousands of satisfied customers use our dependable service to save working-hour time, energy. Write for catalog...on your letterhead...today!



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## ALL NEEDED CONTROLS

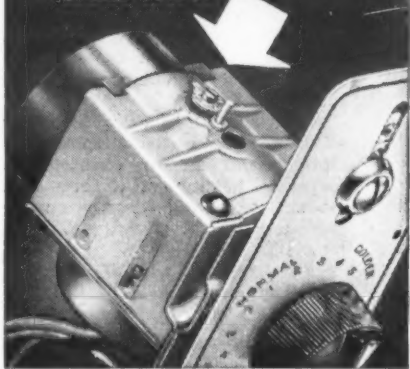
### FOUND IN THE CUTLER-HAMMER REFRIGERATION REPLACEMENT LINE

Sixty percent of all refrigeration control replacement requirements are met by one Cutler-Hammer control alone...the Universal Replacement Unit. And where specific control is needed, that need is met by Exact Replacement control items in the C-H line, each individually packed, clearly labelled, complete with dial plate mounting screws, trim washers and full instructions for mounting and adjustment.

The practical advantages gained are: less capital tied up in stock; rapid and regular turnover; speedier completion of each job; greater all-round satisfaction. And in each C-H Replacement unit you will find the results of a 50-year specialization that had led to acknowledged leadership in the control field. Thus, outstanding refrigeration wholesalers recommend C-H Replacement Control and alert service organizations everywhere feature and use it. CUTLER-HAMMER, Inc., 1362 St. Paul Ave., Milwaukee 1, Wisconsin.



4 degree external differential adjustment either side of normal cutout



is ideal for varying shield thicknesses. Makes this control adaptable to wider range of single dial replacement jobs where overload is not required in unit.



Bul. 9521N9 →  
**THIS ONE UNIVERSAL UNIT ALONE COVERS 60% OF ALL NEEDS**  
ADJUSTABLE MOUNTING BRACKETS  
Maximum Mounting Centers . . . 4-3/16  
Minimum Mounting Centers . . . 2-3/16

Adjustable Cutout Feature—Differential can be increased 4 degrees by turning indicator in "Hi" direction and decreased 4 degrees by turning in "Lo" direction.

Adjustable Range—Turning screw clockwise lowers setting and counter-clockwise raises settings.

Operating knob can be adjusted to meet various evaporator scale settings. New knob

**DOMESTIC, SEMI-COMMERCIAL AND COMMERCIAL CONTROL**

## CROWD-STOPPER

Sherer's self-serve dairy case is a "natural" for drawing the shopping crowds. Its large, easy-to-get-at display area sells more milk, butter, cheese, spreads . . . boosts sales and profits for food merchants.



REFRIGERATED MERCHANDISERS

SHERER-GILLET CO.  
Marshall, Michigan



## Romeyn Becomes Vice Pres. Of Philco International

PHILADELPHIA—Appointment of Radcliffe L. Romeyn as vice president and factory export manager of the International Division of Philco Corp. was announced by Dempster McIntosh, president of the International Division.



For the past two years, Romeyn has served as factory export manager of Philco Corp. He will continue the same duties with added responsibilities in his new position.

Romeyn joined Philco in 1945 as merchandising and sales promotion manager for the export division. Prior to that time, he had lived and worked in Latin America for United States firms for 11 years.

In 1934, he went to Mexico for the Kraft Cheese Co., and his work in connection with Kraft's sales promotion and merchandising activities subsequently took him to almost every Latin American country. In 1939, he was made general sales and advertising manager of the Kraft Co. in Argentina.

In 1943, Romeyn joined Grant Advertising, Inc., and helped to open its branch office in Argentina. Later, he became vice president of the agency in charge of its two offices in Brazil.

## Canadian Mfrs. In Show

TORONTO, Ont., Can. — Members of the Canadian Refrigeration Manufacturers Association will display the latest refrigerating equipment in all its phases during the Canadian National Exhibition to be held Aug. 27 through Sept. 11, it was announced. The exhibits will occupy a large section of the Electrical building.

## Dates Set for Trade Parley

NEW YORK CITY — The 35th National Foreign Trade Convention sponsored by the National Foreign Trade Council will be held Nov. 8-10 at the Waldorf-Astoria hotel here, the council announced.

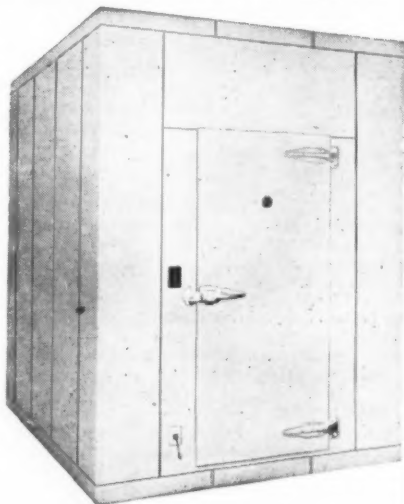
## FREON-12

65¢ per pound  
F.O.B. Fort Smith, Ark.  
145 LB. KINETIC CYLINDERS  
Call, Wire or Write  
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Ft. Smith, Ark.

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"The finest cooler ever made!" That's what they're all saying about MIRACOOOL, America's greatest cooler. Designed by experts, made by experts, MIRACOOOL is everyone's choice when it comes to appearance, construction, and performance. Get a MIRACOOOL and you've got the best!

All purpose sectional steel Walk-In Cooler #100, bare interior for beer storage or with quarter rails and shelf for meat storage. Has heavy insulated door, interior light with outside switch, and extra duty hardware.



Write today for illustrated folder and price list of our complete line of Walk-In Coolers.

The CLEVELAND REFRIGERATOR CO.  
2901 EAST 55th STREET . . . CLEVELAND 4 OHIO  
Manufacturers of Custom-Built Refrigerators Over A Quarter Century



## Industry's Goods Needed by Young Nations Working To Develop Selves, Analyst Says

**Editor's Note:** The following article is an introduction to some future articles by Mr. Hesz which will analyze some of the foreign markets for refrigeration and air conditioning equipment, in terms of present conditions and future possibilities.

The author has until very recently been Director of the Economic Section of the Market Research Department of Chrysler Corp. From 1930 to 1941 he was an official of the Continentale Handelsbank, Amsterdam, Holland, and is the author of a number of market studies and papers on economic subjects.

By Eugene Hesz, International Market Analyst

There can be no doubt about the fact that new markets are waiting for American machinery, and, if we speak of machinery, we certainly include air conditioning and refrigeration equipment—complete units and accessories.

If an attempt is made to throw the spotlight upon some of these markets and to draw practical conclusions, the concrete economic consequences of the Second World War should be recognized, not all of them and not in all detail, but the drastic changes which world trade has undergone since 1938.

What has happened to the big trading centers of the world?

The United States has taken over a large part of the international export markets, formerly controlled by European countries, and by Japan. At the same time the influence of Great Britain as the leading financial and commercial power in the world has declined. Great Britain has been transformed from a creditor nation to a debtor nation and the pound sterling is being replaced by the dollar as world currency.

### The New Markets

On the positive side we observe again, just as after the First World War, an important strengthening of a number of American and African states. This development is also witnessed in Australia and the two Indian countries. In these regions a strong movement towards industrialization and a greater improvement of living conditions and particularly of providing more and better food is aimed at and making progress. These movements have automatically led to a strong demand for improved transportation and improved means for the preservation of the perishable produce of the country and of its surrounding waters.

We note here already a direct con-

nection between the efforts of the strong young countries emerging from World War II and the business possibilities for highly industrialized countries like the United States, to supply the much needed equipment for construction, for transportation, for refrigeration, and for the improvement of general living conditions, which brings air conditioning into the picture.

Another very important change is that international free trade and the

possibility of quick and smooth international clearing of a hundred different currencies have received a major set-back through the political events of the last year. This problem demands detailed study.

Today, instead of asking the question: can our foreign customer pay? we must instead ask ourselves: are dollars available?

This hard fact directs our attention in a straight line to those countries whose foreign exchange position is in good shape. Where this is not the case, the American manufacturer may have the possibility of using the new facilities of the international banks, founded since the end of the war.

Last but not least, the Marshall plan will directly or indirectly help our efforts to obtain and retain our due share of the international markets.

For very natural reasons the American manufacturer looks to the other American countries for his prime foreign markets. Therefore, the South American field will bear close examination in any international market analysis.

Another strong argument in favor of this viewpoint is the fact, sometimes not yet realized, that South and Central America occupy an entirely different and new place in the economic geography of the world at present.

## The Loudon Line for '49! FROZEN FOOD SELF-SERVICE

Now Available in 15 and 25 cu. ft. sizes



### Self-Contained

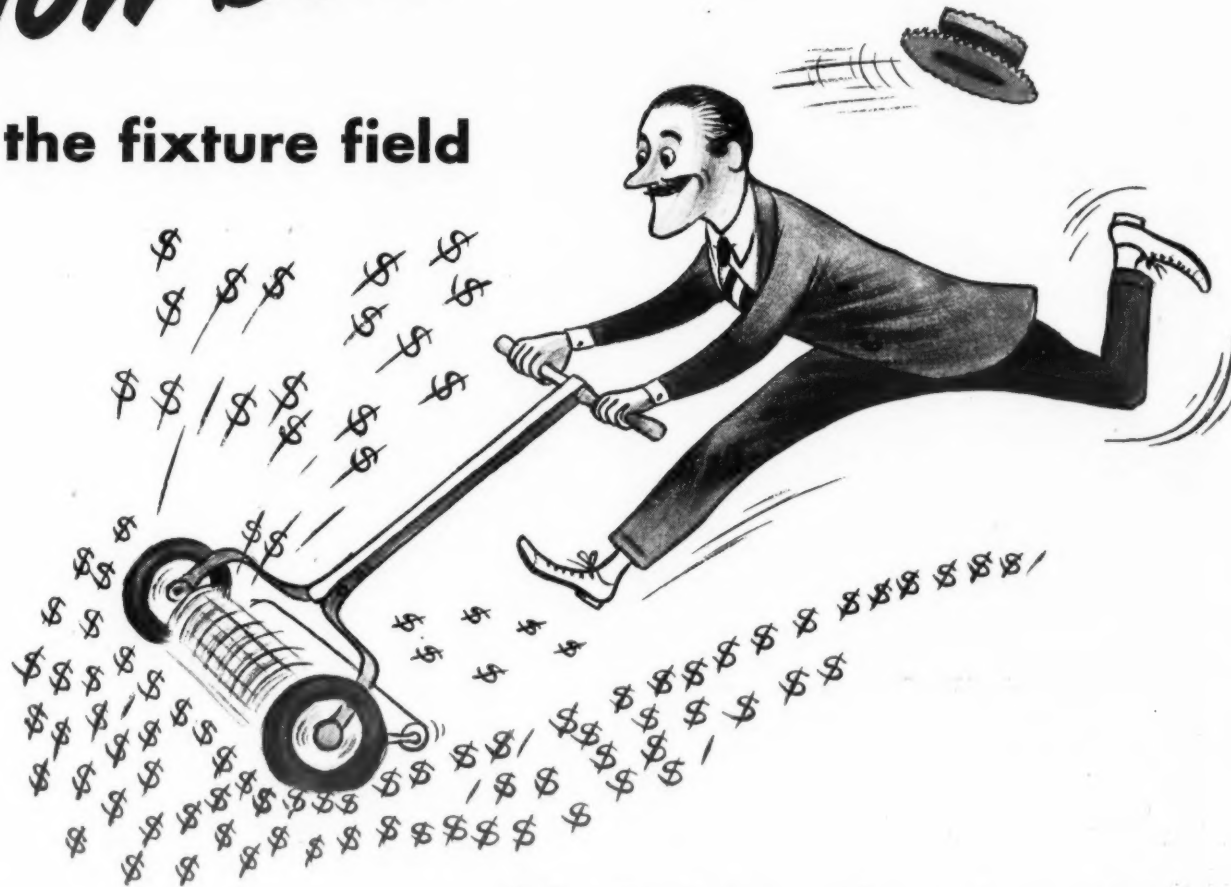
Gleaming white stainless steel beauty attracts customers at once, increases profits for any store. Slide-away Plate Glass Roller Lids increase merchandise visibility. Dealers and distributors write for details.

### Loudon Sales, Inc.

2524 27th Avenue South  
Minneapolis, Minnesota

## MOW DOWN COSTS

in the fixture field



with G-E Condensing Units

Both G-E open and sealed condensing units cut refrigerated fixture costs.

It's easy to install General Electric hermetic or open-type condensing units. Fast, too. That's the key to lower costs for fixture manufacturers.

G-E hermetic units cover the complete suction temperature range from plus 30 to minus 30 degrees F. They're so small they can slip easily into any fixture. Four bolt holes drilled in each side and in the base make them easy to mount.

A special service valve block makes quick system checks possible . . . simplifies connection of refrigerant lines. Hermetics are avail-

able with or without receivers.

### A modern line of open units.

General Electric open-type (CW) units also combine compactness with efficiency. 8 air-cooled and 4 water-cooled models range from 1/6 to 1 1/2 hp.

Both G-E lines are carefully engineered for high volumetric efficiency . . . deliver maximum refrigeration per power dollar. Get full information from: General Electric Company, Air Conditioning Department, Section R8708, Bloomfield, New Jersey.



G-E Hermetic Unit

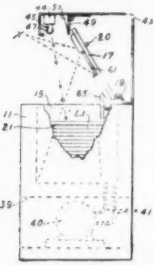
GENERAL ELECTRIC  
Better Refrigeration



PATENTS

Week of May 11  
(Continued)

2,441,463. REFRIGERATED DISPLAY CASE. Nicholas Achs, Detroit, Mich. Application Feb. 28, 1946, Serial No. 650,837. 6 Claims. (Cl. 62-89.5.)



3. A top opening refrigerator comprising, thermal insulating wall means forming a cabinet enclosing a storage compartment having a top opening, a door closing said top opening, a large flat mirror mounted upon the inner or under side of the door, hinge means pivotally attaching the rear edge of the door to the cabinet, a top structure rising from said cabinet and disposed over said top opening above the orbit of the door as it is lifted and so that a light source may be mounted thereon suitably positioned for illuminating the compartment when the door is opened to a forwardly inclined position, latch means mounted on said top structure for holding the door in a forwardly inclined position suitable to permit light to pass from the source down into the compartment while the mirror reflects any horizontally received light down into the compartment and also reflects a clear view of the interior of the compartment to the attendant.

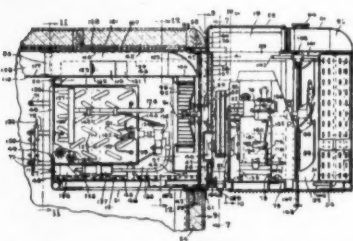
DESIGNS

149,591. DESIGN FOR A COMBINATION REFRIGERATOR AND FREEZER CASING. Arthur Schupp, New York, N. Y. Application Dec. 23, 1945, Serial No. 125,089. Term of patent 3 1/2 years. (Cl. D67-3.)



REISSUES

23,000. REMOVABLE COOLING UNIT FOR COMPARTMENTS. Frederick M. Jones, Minneapolis, Minn., assignor to The U. S. Thermo Control Co., Minneapolis, Minn.

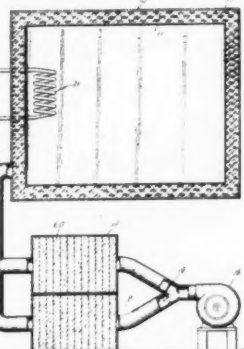


1. In combination with a food storage compartment such as the compartment of a transport vehicle having walls exposed to outside atmosphere, including a front wall having an opening therethrough, a cooling unit comprising a single unitary casing the walls of which form two chambers, an evaporator heat exchanger secured to the casing in one chamber, air moving means in said one chamber, a compressor and air-moving means and a gas engine for operating the compressor and both air-moving means secured to the casing in the other chamber, the casing of the evaporator-containing chamber and said opening being relatively of a shape

and size such that said casing part may fit inside and be projected through the opening to be within the compartment and the other chamber be outside the compartment and its walls exposed to outside air, means in the casing supporting the first mentioned air moving means and forming the dividing partition of said chambers for insulating them one from the other, and means for securing said casing and parts carried thereby on said front wall so that the casing as an entirety and all parts of the cooling unit may be readily removed therefrom as an entirety.

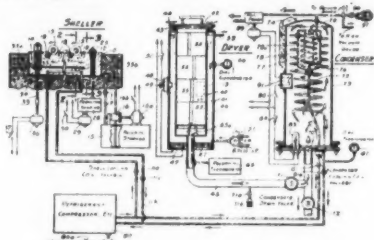
Week of May 18

2,441,571. METHOD AND APPARATUS FOR THE PREVENTION OF CONDENSATION. Arnold H. Heineman, Chicago, Ill., assignor to Vacuum Process Corp.



1. In a refrigerating device, a substantially but imperfectly hermetically sealed wall defining a refrigerating chamber, means for cooling the chamber to a refrigerating temperature, a second wall spaced outside of the first wall defining an insulating space between the walls, a porous insulating material in the insulating space, said second wall also being substantially but imperfectly hermetically sealed, and means for supplying dry gas under slight superatmospheric pressure to said insulating space, said gas leaving said insulating space through said imperfections.

2,441,730. METHOD AND MEANS FOR PRESERVATION OF BLOOD PLASMA AND THE LIKE BY FREEZING AND DRYING. Max M. Strumia, Penn Valley, Pa., assignor to the United States of America as represented by the Director of the Office of Scientific Research and Development.

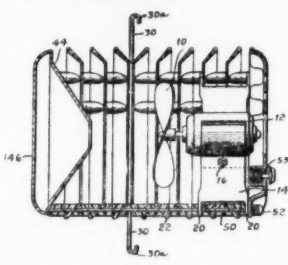


1. In the art of preserving plasma and like biological products, a process which consists in precooling the plasma to approximately its freezing point in a bottle-like container, further cooling and snap freezing a portion of the plasma to the wall of the container while maintaining the container on its side and the plasma quiescent therein, thereafter rotating the container on its side about a horizontal axis and further cooling the same to cause freezing of the plasma about the inner wall of the container in a shell of substantially uniform thickness, arranging the container of shelled plasma neck down in a zone of high vacuum and, while maintaining the plasma in frozen state therein, withdrawing effluent vapors from the plasma and from said zone in a downward direction in which the withdrawal of vapor is facilitated by the action of gravity, passing the withdrawn vapor to and thence upwardly through a condenser in said zone of high vacuum so that the contact of the vapor with the condensing surfaces is prolonged by the action of gravity, while maintaining the condensing surfaces at a temperature of approximately minus 30 degrees C. to minus 40 degrees C., and conducting heat to the plasma during the drying operation at a controlled rate expediting drying thereof without thawing of the frozen and drying mass, until the plasma is dried in said container.

3. In the mechanical shell freezing of biological materials in a cylindrical container, the improvement which comprises inducing snap freezing of a portion of the material to the side of the container

with the material in a quiescent state, and thereafter inducing progressive freezing of the material as a shell around the inner wall of the container while slowly rotating the container, on its side, about its cylindrical axis.

2,441,737. PLASTIC VENTILATOR FAN. Willard W. Welch, Cincinnati, Ohio. Application Jan. 3, 1944, Serial No. 516,858. 9 Claims. (Cl. 230-273.)



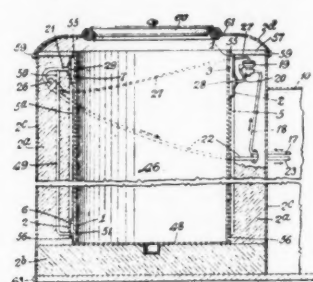
1. In a ventilating assembly having a fan driven by an electric motor, the combination of a vertically disposed baffle member having an air circulating opening, said baffle member having a plurality

of apertured ears projecting inwardly into the opening, with a plurality of identical hoops having apertured bosses, the apertures through the bosses registering with the apertures in the ears of the baffle, retaining rods extending through the apertures for clamping the hoops and the baffle into a rigid structure, said hoops surrounding the fan and the motor, and bracket means for supporting the motor in fixed spaced relation with respect to the hoops so that as the fan propels the air it forces the air through the opening in the baffle.

2,441,833. REFRIGERANT EVAPORATOR. Willard L. Morrison, Lake Forest, Ill. Application Aug. 16, 1943, Serial No. 498,813. 2 Claims. (Cl. 62-126.)

1. A refrigerating evaporator-container comprising an inner cylinder into which the material to be cooled is placed, an outer cylinder larger in diameter than the inner cylinder surrounding the inner cylinder with a space between them, the outer cylinder being crimped to form a plurality of inwardly projecting ridges integral therewith which engage the outer face of the inner cylinder, said ridges being shorter than the height of

thereof, and one end of certain of the intermediate ridges being nearer the the outer cylinder, one end of some of said ridges being nearer the upper edge of the cylinder than the lower edge



lower edge of said cylinder than the upper edge thereof, the upper and lower ends of said outer cylinder being bent inwardly to engage the outer face of the inner cylinder and a hermetically sealed connection between said bent ends of said outer cylinder and the face of said inner cylinder.

(To Be Continued)

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WANTED: SALES Engineer on refrigeration and air conditioning. Must be able to estimate and lay out his own work. Should be college graduate in Mechanical Engineering with at least five (5) years field experience. Salary, bonus, and traveling expenses. Submit qualifications with photograph to H. A. C. Smith, District Sales Manager, BAKER ICE MACHINE CO., INC., St. Louis 6, Missouri.

WANTED—SALES engineer. Commercial and industrial sales engineer experienced in refrigeration and air conditioning for position in the East. Applicants to state experience and case history. Advancement based on ability. Salary open. BAKER ICE MACHINE CO., INC., South Windham, Maine.

OPPORTUNITY FOR dairy equipment salesmen calling on refrigeration dealers. We need representatives in several territories. Agents should have kindred but not competitive lines. Product—Outstanding Packaged Aerator Milk Cooler for farm use. In first letter give references and territory now traveling. STAR PUMP & COOLER CORPORATION, 1218-24 N. 15th St., St. Louis 6, Mo.

SALES REPRESENTATIVE wanted to sell Norge oil heaters and heating equipment and Jordon refrigeration line. Established Wisconsin territory. Aggressive, experienced man can anticipate permanent position; salary and expenses or drawing account against commission. Apply in person or by mail. WEISFELDT DISTRIBUTORS, 616 S. 84th Street, Milwaukee 14 Wisconsin.

SALES ENGINEER—Prominent midwest manufacturer of automatic temperature and pressure control equipment has position for well qualified engineer. Experience in sales and application engineering of automatic controls desired. This is an excellent opportunity for a capable man who wishes to become associated with a progressive concern. In reply give age and full details of education and experience. BOX 2870, Air Conditioning & Refrigeration News.

SALES AND Service Engineer. Capable of taking full charge of one of the oldest and largest commercial and industrial refrigeration and air conditioning dealers in New Jersey; must be able to estimate layout and supervise installations. Write full details of qualifications, experience, age, and salary expected. BOX 2881 Air Conditioning & Refrigeration News.

DISTRICT MANAGER—Store fixtures. Excellent territory open in Southern Ohio, Indiana, Kentucky, West Virginia, for aggressive district sales manager, to assist distributors in layout and sale of supermarket and other fixtures. An unusual opportunity, with a nationally known manufacturer of fixtures. Our entire sales organization knows of this ad. Write BOX 2882, Air Conditioning & Refrigeration News.

SERVICEMAN EXPERIENCED on Coml. and Air Cond. Large Midwest city. Must have own car & tools. Year-round work with opportunity for advancement. Good hourly rates, time and one half for overtime and liberal car allowance. Give complete details of experience & enclose recent snap-shot. BOX 2883, Air Conditioning & Refrigeration News.

WANTED. SALES engineer, by old established contractor in Chicago. Thoroughly experienced on ammonia equipment, commercial and industrial. Must be able to estimate own work. Drawing account and expenses against liberal commissions. Some travelling required in Northern Illinois and Wisconsin. Give references and experience. BOX 2885 Air Conditioning & Refrigeration News.

WANTED—ONE commercial refrigeration and air conditioning installation and service man to take charge of a small service department for Frigidaire commercial distributor. Transportation necessary. Top salary. BOX 2892 Air Conditioning & Refrigeration News.

EQUIPMENT WANTED

NEW YORK area sales representative. 10 years with one of the national manufacturers. Starting own agency. Ample financed. Want packaged air conditioners, condensing units, fixtures. Finest of references. BOX 2869, Air Conditioning & Refrigeration News.

WANTED—SERVEL kerosene refrigerators. Spot & futures. We have available for immediate and future delivery, all leading brands household refrigerators. Price lists available. BOX 2889 Air Conditioning & Refrigeration News.

EQUIPMENT FOR SALE

8500 3/4" copper return bends crimped ends. 6000' 3/4" OD type L hard drawn copper tubing. 3500 lbs. .010 x 2 3/4" copper coil strip. 1 1/4" OD Solder Mueller A 13931 refrigeration packed line shut off valve. 16 3/4" OD Solder Mueller A 13929 refrigeration packed line shut off valve. 3 3/4" OD Solder Henry angle refrigeration packed line shut off valve. 2 Louvres. 44" x 45". 2 two way diffusers. 1 Kennard 18" x 48" finned face two row steam coil. 1 Kennard 18" x 72" finned face two row steam coil. 2 36" x 78" finned face two row steam coil. 1 24" x 27" finned face two row steam coil. 10 20" x 20" x 2" American air filters. 9000 2 3/4" x 9" copper fins punched for 3/4" OD tubing. 1000 1/4" x 4" x 20" mild plate fingers. Write: AIR-PAK COMPANY, INC., 117 Third Avenue, North, Nashville, Tennessee.

3 F408M Bush low temperature coils \$750.00 and McQuay C7A unit cooler \$675.00 New-crated. AIR TEMPERATURE CONTROL CO., 1575 S. Division Ave., Grand Rapids 7, Mich.

FOR SALE! Used water cooling coils. Coils for 20000 CFM, 4 sections each 7'-6" long and 2'-0" wide face area and 2 sections each 7'-6" long and 1'-4" wide. All sections have 5 rows 1/2 inch copper finned tubes deep, in serpentine arrangement. Also set water cooling coils 2 sections each 6'-0" long and 2'-0" wide face area. Each section has six rows finned copper coils deep arranged for 3 serpentine passages of water each 2 rows deep. Cleanable type tubes. ASSOCIATED THEATRES INC., 1325 Dime Building, Detroit, Michigan.

SEALED UNITS rebuilt and exchanged. Prompt service on Coldspot (sealed & semi-sealed), Chieftain, Gale, Tecumseh, Norge and many others. One year guarantee. Write for price list and shipping instructions. BRIGHTON, 16640 Log Cabin, Detroit 3, Mich.

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SODA FOUNTAIN cabinet lids and collars, twin door assemblies, in original factory cartons. Size 15 1/4" long x 3 1/4" high x 11 1/4" wide; stainless steel top & bottom, highest quality rubber lip & collar. Have 42 sets at \$7.00 per set. DRY KOLD REFRIGERATION, 1576 Maple Ave., Evanston, Ill.

SECOND HAND refrigerators, all makes and models in operating condition for immediate delivery. HANTOBER & CO., INC., 200 East Church Lane, Philadelphia 44, Pa.

VILTER PAK-ICER units, 1 ton capacity, complete with 1/2 ton red wood storage bin and 3 H.P. aircooled Brunner compressor. These are new machines made since the war, not surplus, in original factory crates. \$1700.00 F.O.B. El Paso. HARRY L. HUSSMANN JR., INC., El Paso, Texas.

NEW BUFFALO Forge #490 FTC evaporative condenser and 1 1/2 HP, 3 phase, 60 cycle, 220 volt open motor with 2-8 1/2 x 48" liquid receivers—\$1900. 1 new BYDK-768 two stage Minneapolis Honeywell thermostat—\$25. 1 new Acme #182 P.C. cabinet with filter box with filters 6 row D.E. coil drip pan under valves, adjustable pitch V belt drive and external motor base with 3 H.P., 1800 R.P.M., 3 phase, 60 cycle, 220 volt motor—\$1000. JOYCE LUMBER COMPANY, Clinton, Iowa.

5 HP MILLS & PAR condensing units \$350. 5 HP Typhoon weathermakers \$350. 1 HP Amco weathermakers \$175. 50 HP Schnacke \$995. 1/2 HP Universals \$39. 1/2 & 1 HP Copelands \$29. 1/2 HP Sealed Universals \$59. Westinghouse 2 1/2 ton used self-contained Air Conditioner \$395. Some "As Is" used refrigerators. PILGRIM, 48-20 43rd Avenue, L. I. City 4, N. Y.

SEALED CROSBLEY terminals. Installed from the outside in a few minutes without opening the compressor or removing unit. No special tools needed. Stops leaky terminals on "F-12" units. Part #1020 short model—for short Crosley terminals ("F-12" compressors with 4 mounting legs.) Part #1020 long model—for long Crosley terminals ("F-12" compressors with 3 mounting legs.) \$5.25 set of three. Immediate delivery. Money-back guarantee. SEALED UNIT PARTS CO., 3097 Third Ave., New York 56, N. Y.

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WORKING PARTNER for going domestic and export heating, refrigeration, air conditioning and general contracting business to invest at least \$12,000. Must have knowledge of refrigeration, air conditioning and willing work long hours. Location New York City. BOX 2874, Air Conditioning & Refrigeration News.

MIAMI, FLORIDA. Well established Air Conditioning and Refrigeration business for sale. Volume for 1947 over \$400,000.00. Owner must retire. Will sell for net worth, approximately \$150,000.00. Terms BOX 2879, Air Conditioning & Refrigeration News.

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## In the Good Old Summertime Even Busy Refrigeration Men Find Time for Fun

Summertime means picnics and golf tournaments, even for refrigeration men who are usually busiest at just this season. Shown below are a few pictures taken at the first annual golf tournament sponsored by the Refrigeration Contractors Association of Chicago and the annual picnic for the local refrigeration industry sponsored by the Refrigeration Contractors Association of Detroit.



Winner in Chicago's golf tourney was L. C. "Andy" Anderson, who received the trophy from Jack Glass, who headed the parts wholesalers supporting the event. From left to right above are Walter and Ray McCarty, Hal Wheeler, Miss Edna Berggren (association secretary), Anderson, T. C. Johnsen, and Glass.



Contractors, manufacturers, city officials, and parts wholesalers were represented at the big banquet following the golf meet. Left to right above are (front row) J. J. McKeague, Joe Coyne, H. W. Blythe, and I. J. Kristafels; (second row) Ray Price, Karl Berquist, John Annis, J. A. Coleman, and Herman Goldberg. Photos above were taken by Irving Alter.



At Detroit's annual picnic, there were the usual contests for children, baseball, horseshoes, dancing, and the like, but a special event was a beauty contest between the contestants shown above with lucky Chris Milazzo, general picnic chairman, in the middle.



An added, surprise feature at the Detroit picnic was a barbecue, which found many of the several hundred in attendance doubling back in line several times for delicious hickory-smoked beef, pork, and spare ribs, prepared expertly under the direction of Contractor Jim Terry (carving), who originally hails from the South.

## Share of Service Income Puts Store Mechanics 'In Business for Themselves'

BOISE, Ida.—Under an incentive compensation plan developed by Boise Music & Appliance Co., its appliance repair men are practically "in business for themselves."

Here are the details of the plan as outlined by Ollie Hon, head of the appliance dealership:

The service department is separate from the sales section, but is considered a highly important supplemental division. Separate books are kept on service income.

Hon allows the two mechanics who operate the department to keep the first \$400 taken in each month as salary, or a guaranteed \$200 each. Then, as an extra incentive, the men are allowed half of the gross amount taken in above the \$400 base.

The "split" on service department income above the base amount is determined by the number of hours each man has worked. Therefore, according to Hon, both mechanics put in long hours and try to keep at an even pace.

Also, the servicemen are entitled to a commission of approximately 10% on all appliance parts sold over the counter or installed in customers' appliances.

In addition, instead of retiring a set amount of money for each appliance warranty, the money is paid to the men. This arrangement, Hon said, guarantees that service work will be done as efficiently as possible to avoid callbacks.

Here is what the servicemen would actually make under this plan, using hypothetical figures:

If, during a 30-day period, \$700 was taken in by the shop, the pair would get the first \$400. If both worked the same number of hours, each would receive an additional \$75 (splitting one-half of the remaining \$300 between them). If they sold \$200 worth of parts, this would mean a 10% commission of \$20, or \$10 for each man.

The plan has worked out perfectly, Hon reported. The intentness with which each man sees to the perfection of his repair work is ample testimony that the men appreciate the system, he said.

If the service department takes in as much as \$75 over the amount paid the repair men, this is considered adequate to pay for the space occupied by the department. Anything above that is "pure profit." Like many other appliance merchants, Hon feels that the service department is a powerful sales tool if it merely breaks even.

## Sales of Durable Goods Run 13% Ahead of '47

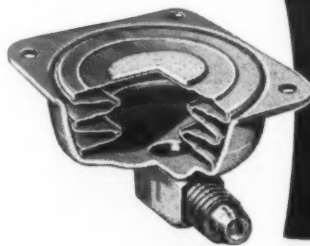
WASHINGTON, D. C.—Durable goods manufacturers sold \$41 billion worth of merchandise during the first six months of this year, or 13% more than in the first half of last year, the Office of Business Economics in the Department of Commerce announced recently.

Their sales accounted for approximately 40% of all manufacturers' sales for the period, the Office of Business Economics said.

Their inventories amounted to \$13,900,000,000 on June 30, up \$1,100,000,000 over the same day last year, it added. This increase, however, represented only about one-third the increase made by all manufacturers, it noted.

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## Illinois RSES Schedules 11th Annual Convention

SPRINGFIELD, Ill.—Completion of arrangements for the eleventh annual convention of the Illinois Association of Refrigeration Service Engineers Society, to be held Sept. 25-26 at the St. Nicholas hotel here, was announced by William J. McCauley, association president.

Charles J. Fox, of Springfield, is general chairman of the convention. F. B. Frazee, chairman of the state educational committee, arranged the program.

A pre-registration meeting of early arrivals and a question box program conducted by Harry D. Busby, managing editor of *The Refrigeration Service Engineer*, are scheduled for Friday evening, Sept. 24.

Regular sessions will be held Saturday afternoon and Sunday morning. Four speakers will address the Saturday afternoon session as follows:

T. G. Thomas, sales manager, Schnacke, Inc.—“The Service Engineer and the Five to Fifty Horsepower Market”; F. Ed Ince, Marlo Coil Co.—“Proper Methods for the Selection of Evaporative Condensers and Cooling Towers”; William V. Richards, sales manager, H. A. Phillips & Co.—“Application of ‘Freon-12’ Liquid Injectors”; W. J. Aulsebrook, sales manager, Servel, Inc.—“New Opportunities and New Problems in Sealed Units.”

The session Sunday morning, Sept. 26, will hear a talk on “New Developments in Air Conditioning Equipment” by F. H. Eldredge, General Engineering & Mfg. Co.

The annual banquet will be held Saturday evening. During that day, wives will visit the Lincoln shrines in Springfield and lunch at the replica village of New Salem.

A registration fee of \$10 has been set for both members of the society and non-members. Following a regular practice, an additional charge of \$6 will be made for table space provided for refrigeration jobbers and manufacturers.

## Wolverine Tube Jumps Wages 12½ Cents, Salaries 8.8%

DETROIT—A wage increase of 12½ cents an hour for all hourly employees and a boost of 8.8% for salaried employees has been announced here by the Wolverine Tube division of Calumet & Hecla Consolidated Copper Co.

## ‘Foolproof’ Plan—

(Concluded from Page 1, Column 4)

who grant unauthorized discounts.

In addition, it has what was announced as a unique policing arrangement to uncover instances where price-cutting dealers persuade purchasers to cancel orders already placed with competitors by offering identical merchandise at a reduction.

Gross explained that all Stromberg-Carlson retail television sales must be registered with Gross Distributors, Inc., regardless of whether or not servicing and installation are handled by the dealers themselves or left to his organization as it is in the majority of cases. Failure to report a sale means loss of the one-year warranty, Gross said.

After a dealer notifies Gross Distributors that a sale has been made, he is sometimes told by the consumer to cancel the order before delivery because the purchaser can secure a discount, Gross said.

When that occurs, he explained, the distributor checks his sale files and installation personnel to determine who made the cut-price sale. At this point the price cutting dealer then is forced to turn over his full gross on the sale to the competitor.

Gross said that about half a dozen dealers already had had this penalty imposed on them. One department store received a check for \$240, the entire gross profit on the sale of an expensive Stromberg-Carlson receiver sold by a dealer below list after the original department store order had been canceled by the customer.

## Shot-In-the-Arm—

(Concluded from Page 1, Column 5)

too-frequent intervals. One piece of promotion has been used to publicize the home delivery service, and this was directed to known home freezer owners. Future pieces will no doubt be so prepared as to sell freezers as well as frozen foods. Convenience rather than economy has been stressed thus far.

New warehouse facilities for frozen foods have been acquired by Field's in Evanston, suburb which borders on Chicago to the north, and deliveries are being made in two refrigerated trucks. It is understood that no service charges are made for deliveries.

Extension of the delivery service to other parts of the Chicago area would naturally bring about the need for more refrigerated warehouse facilities and refrigerated trucks.

## Court Holds Oklahoma Law Banning Below-Cost Sales Unconstitutional Because of Poor Phraseology

MUSKOGEE, Okla.—Oklahoma's “unfair sales act,” banning below-cost sales, was held unconstitutional by a three-judge District Court opinion handed down here.

The decision by the district judges, sitting en banc because of the nature of the case, was on a petition of Warren Engelbrecht, as president of the Oklahoma Retail Grocers Association, for a permanent injunction to prevent Earnest Day, a grocer, from selling food items below a 6% markup after all costs had been added.

A temporary restraining order has been issued against Day in April. Engelbrecht was required at that time to post \$1,500 bond to cover any damages Day might suffer.

The three judges who found the law unconstitutional were E. A. Summers, who delivered the opinion; O. H. P. Brewer and E. G. Carroll.

Although pointing out that the

right of the State Legislature to enact laws governing trade practices remained unquestioned, Judge Summers said the phraseology of the law was the basis of the ruling.

He said the words “intent or effect of violating” the statute make an infraction a crime “by reason of effect.”

“By proving effect alone,” he continued, “you can't prove a crime. The state is without power to make a thing a crime just because of effect without knowledge or intent.”

The court said that under such a law, if constitutional, a man firing a shot intended for a squirrel could be prosecuted for murder if the shot missed the squirrel and accidentally killed a man.

The Oklahoma Legislature “just talked too much and put in language they could not sustain,” Justice Summers said.

The ruling will be appealed.

## Westinghouse Net Sales Reach Record Heights

PITTSBURGH—Net billed sales of Westinghouse Electric Corp. for the six months ended June 30 totaled \$424,456,103—a new high, Gwilym A. Price, president, reported.

The total was 7% above the previous high of \$395,564,740 set in the first half of 1944 and compares with \$312,338,636 for the corresponding period of last year.

Net earnings were \$24,941,100, or \$1.83 per share, against \$21,735,442, or \$1.59 a share, for the first six months of 1947.

Net earnings for the 1948 first half amounted to 5.9 cents from each dollar of net sales billed, compared with 7 cents in the first half of last year. This drop was due to higher labor and materials costs and to price reductions on Westinghouse products made during the period, Price explained.

## McCord Corp. 9-Mo. Profit Passes \$2 Million Mark

DETROIT—A net profit of \$2,072,612 for the nine months ended May 31, 1948 has been reported by A. C. McCord, board chairman of McCord Corp. here. This equals \$10.43 each on 191,978 common shares, he indicated.

For the same period last year, the company earned a net profit of \$1,804,004, or \$6.42 each on 270,253 shares.

No action was taken by company directors on a proposal to split the stock, he reported.

## Raise Restores Cooling To N.Y.C. Theater Patrons

NEW YORK CITY—A substantial pay raise to members of Local 30, International Union of Operating Engineers, AFL, turned the air conditioning back on in 83 local movie houses here last week.

A two-year agreement between the union and the RKO and Loew chains provides for a 15% raise to engineers in Broadway houses and 10% to engineers elsewhere for the first year. For the second year, both sides—and the customers—will wait and see.

## Norge, Thor Prices—

(Concluded from Page 1, Column 3)

Automatic dishwasher, \$249.50; Automatic clothes and dishwasher combination, \$309.45; Automatic sink and clothes-dishwasher combination, \$429.95; model T-92-ER wringer washer, \$139.50.

No change was made in the T-93-ER wringer washer at \$159.50 or the Gladiron at \$99.50.

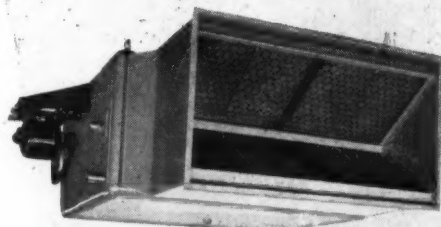
Thor president John R. Hurley pointed out that the increase was the first since May, 1947 and resulted from increases in costs.

# BUSH HEAT TRANSFER PRODUCTS

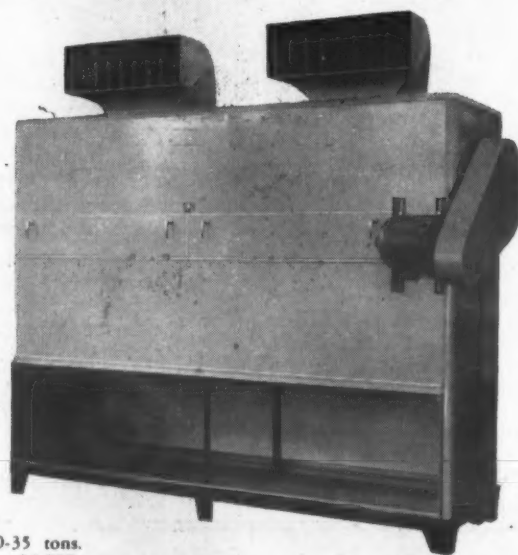
*The “STOCK UNIT” answer to every need!*

BUSH WATER, STEAM AND DX COILS are supplied in standardized and matched sizes and singly or in combination can be arranged to fit practically any installation. Top materials. Conservatively rated.

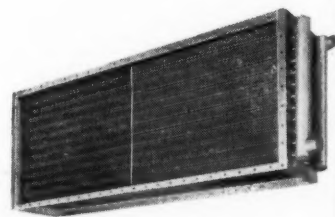
BUSH HEAVY DUTY COOLERS, floor and ceiling type, are designed for easy installation and service . . . fill practically every refrigeration or air conditioning need. Expert engineering and workmanship.



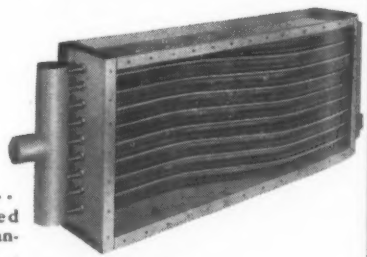
**CEILING TYPE UNIT —**  
Air Conditioning: 5-25 tons.  
Product Cooling: 24,000-48,000 BTU/HR at 10° TD above 32°. The last word in efficient design and operation.



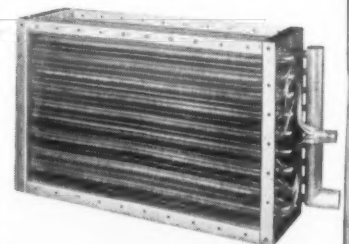
**FLOOR TYPE UNIT —**  
Air conditioning: 10-35 tons.  
Product Cooling: 24,000-96,000 BTU/HR at 10° TD above 32°. 24,000-90,000 BTU/HR at 10° TD below 32°. Built in two sections for quick, easy installation.



**WATER COILS . . .**  
Aluminum fins on tin-plated copper tubes . . . mechanically expanded fin-to-tube bond . . . turbulence-creating finger spacers.



**STEAM COILS . . .**  
O-GEE curved tubes for expansion stresses . . . large tubular headers . . . standard BUSH materials and workmanship.



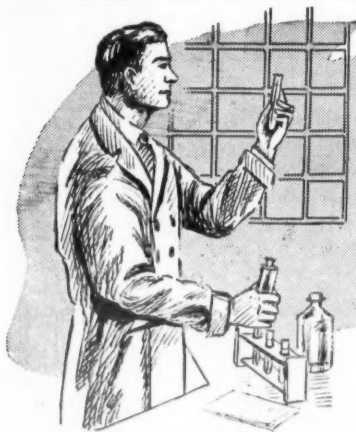
**DX COILS . . .**  
Low pressure drop circulating . . . pressure-type refrigerant distributors . . . sound, conservative ratings . . . reinforcing tiebars for high structural strength.



Write TODAY for the new BUSH Catalogs illustrating and describing Water, Steam and DX Coils and Heavy Duty Coolers . . . each containing complete engineering data to help you plan and specify. Address DEPT. C5.



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*Let's talk  
about  
Chemistry!*

## THAWZONE DATA

That a chemical agent is needed in a refrigerating system is not always immediately apparent to the engineer.

The ideal refrigeration unit would have an inert fluid circulating in a system made up of completely inert parts. This is, of course, impossible to realize in practice. The most carefully installed system contains traces of air, moisture, acids and other impurities.

**THAWZONE**  
PATENTED

The PIONEER FLUID DEHYDRANT

In other types of systems, such as aircraft radiators, hydraulic brakes, gasoline, etc., it has been found practical to use inhibitors to correct a situation, rather than to try to reach the ideal state in which corrosion and reactions do not occur. Similarly, in a refrigeration system THAWZONE is used to remove traces of water and air that cause freeze-ups and corrosion.

THAWZONE is a practical solution to the problem of impurities which are difficult to prevent or remove by other means. Ten years of constant use have shown that THAWZONE, as an additive agent to refrigeration systems, is eminently practical.

**HIGHSIDE CHEMICALS CO.**  
195 VERONA AVE. NEWARK 4, N. J.



\*TRADE MARK REG. U. S. PAT. OFF.